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SUMMARY OF THE 1986-87 CAMPGROUND RECEIPT STUDY

by

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<p>The Campground Receipt Study (CRS) was established to systematically collect information on visitor characteristics at Corps of Engineers fee campgrounds. This system has proved to be an efficient method of collecting trend data.</p> <p>Since the creation of the CRS there have been a great many changes in the study procedures, data collection form, and study sites. These changes have been described in previous reports. The main purpose of this report is to describe the 1986-87 data and the trends in camping use indicated by the CRS data collected from 1981 to 1987.</p> <p>The CRS data represent the best available nationwide sample of descriptive characteristics of visitors to Corps campgrounds. The data base can be used by all levels within the Corps to examine current use patterns and, with several years of data, to monitor and evaluate changes in visitor characteristics over time. This report includes several management applications to provide an analysis of campground occupancy rates.</p>					
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PREFACE

This report describes work performed under the Natural Resources Research Program (NRRP) at the request of Headquarters, US Army Corps of Engineers (HQUSACE). The report presents the results of the 1986-87 Campground Receipt Study. Camping trends are presented based on time series data collected from a nationally representative sample of Corps-managed campgrounds.

This report was prepared by Ms. Tere A. DeMoss and Mr. John P. Titre, Jr., Resource Analysis Group (RAG), Environmental Laboratory (EL), US Army Engineer Waterways Experiment Station (WES). Mr. R. Scott Jackson, Team Leader, Recreation Research Team, RAG, was the principal investigator for the work unit. Important comments on Automated User Permit System integration were provided by Mr. William A. Rogers, RAG. Statistical expertise was contributed to this report by Ms. Janet Akers-Fritschen, RAG. Review and comments were provided by Mr. Larry Lawrence and Mr. R. Scott Jackson, RAG.

The report was prepared under the general supervision of H. Roger Hamilton, Chief, RAG, EL; Dr. Conrad J. Kirby, Chief, Environmental Resources Division, EL; and Dr. John Harrison, Chief, EL. The NRRP is managed under the Environmental Resources Research and Assistance Programs (ERRAP), Mr. J. L. Decell, Manager. Dr. A. J. Anderson was Assistant Manager, ERRAP, for the NRRP. The report was edited by Ms. Janean Shirley, of the Information Management Division, Information Technology Laboratory, WES. Ms. Judy Rice and Mr. Robert Daniel, HQUSACE, were Technical Monitors of NRRP.

COL Larry B. Fulton, EN, was Commander and Director of WES during preparation of this report. Dr. Robert W. Whalin was the Technical Director.

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SUMMARY OF THE 1986-87 CAMPGROUND RECEIPT STUDY

PART I: INTRODUCTION

Purpose

1. This is the seventh in a series of reports which summarize the results of the Campground Receipt Study (CRS). The CRS has undergone continual improvement in procedures and in the application of data analysis. Changes in procedures are generally found in the earlier reports, while improvements in special data applications tend to be found in the later reports. The main purpose of each report, however, is to describe the CRS data so that a data base can be established and to analyze trends in camping use for the reported year. Unlike previous reports, which include only 1 year of complete project data, this summary includes 1986 and 1987 data, while examining trends from 1981 through 1987.

Background

2. In 1978, the Recreation Research and Demonstration System (RRDS) was established under the Natural Resources Research Program of the US Army Corps of Engineers. The RRDS units serve as permanently designated outdoor laboratories at which information on recreation and resource aspects of lake management can be systematically gathered. In constructing a representative sample of sites, Title V economic development and physiographic regions were combined to produce 30 physioeconomic regions. Twenty-four units were selected from these regions, representing approximately 5 percent of the then 465 Corps projects. From these 24 units, 16 projects were willing to participate in the CRS (Figure 1). The 24 projects were chosen to represent a wide variety of multi-purpose reservoirs, locks and dams, and dry lakes. A US Army Engineer Waterways Experiment Station (WES) publication (Hart 1981) contains a detailed explanation of the RRDS units and their selection. Specific criteria for selection are provided below:

- a. Full range of activities.
- b. Spectrum of resource characteristics.
- c. Nationwide distribution of units.

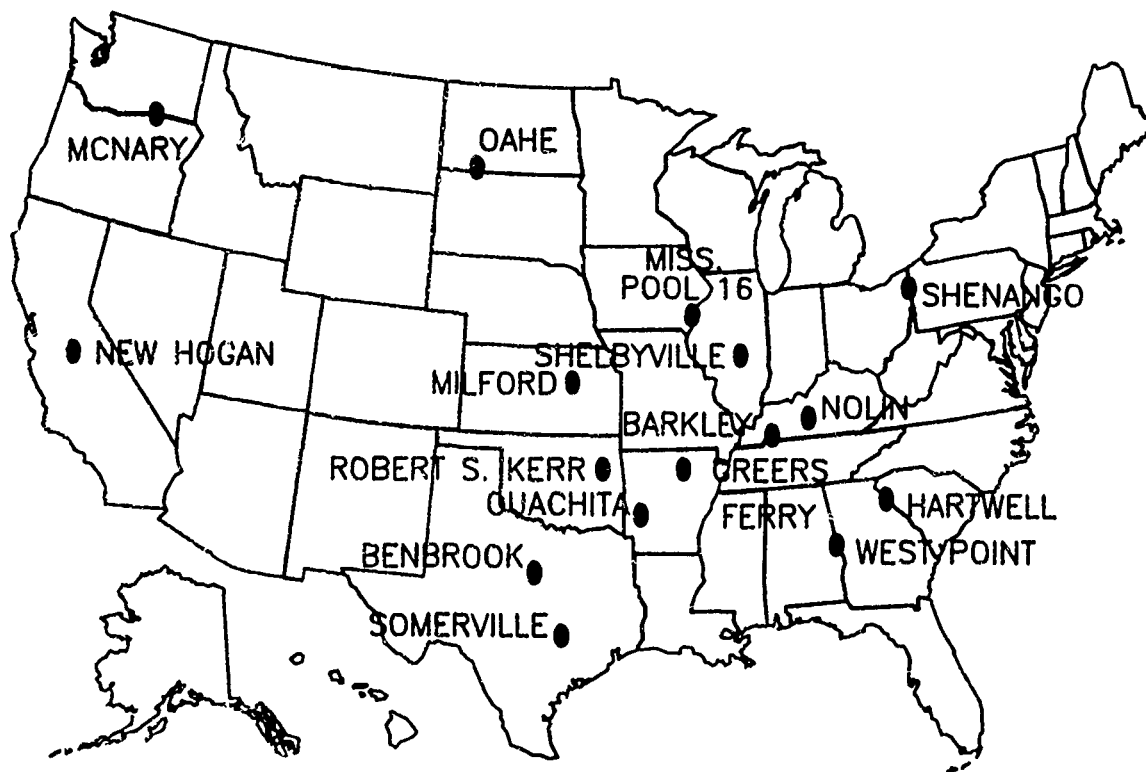


Figure 1. Campground Receipt Study project locations

- d. Range of conditions at multi-purpose projects.
- e. Planning, design, and management tasks.

3. One of the main uses of the RRDS has been the Campground Receipt Study (CRS). Through the CRS, a data base has been developed on one of the Corps' most popular activities: camping. Four factors guided the development of the CRS (Curtis and Hansen 1982):

- a. The procedures and instruments developed were to place a minimum burden on project personnel.
- b. The procedures were to have a minimum impact on the recreation visitor when registering at the campground.
- c. The monitoring procedures were intended to be cost-effective and efficient.
- d. The data collected were designed to be valid and reliable.

4. There are two important distinctions concerning the CRS data base that require attention. First, the information gathered, as a subset of the CRS, only includes fee campers; therefore, these data do not describe the "Corps visitor" per se. Second, the analyses are done to illustrate potential uses rather than to provide a definitive portrayal of all possible

applications. Users are encouraged to further utilize the data base as the management tool for which it was intended.

Study Procedures

5. Data collection for this study was done by rangers and campground gate attendants as campers registered. Most of the data were collected through observation, so there was minimum impact on the visitor. The data were recorded on Engineer Form 4457-1. A thorough discussion of the development of this form is provided in the 1983 Campground Receipt Study report by Akers-Fritschen (1985).

6. After the CRS data were collected and sent to the corresponding District Office for keypunching, they were forwarded to WES for analysis. For the analysis, a FORTRAN program, the Recreation Analysis Program (RAP), was developed. This program generates two reports. The "Area Report" provides a summary of the CRS data for each recreation area, while the "Site-Specific Data Report" provides most of the same information for each campsite. District offices that participate in the CRS are provided with a copy of the RAP for their own analysis purposes.

7. For the 1986-87 analysis, data from the RAP output were transferred into the Statistical Analysis System (SAS). SAS is an advanced data manager and statistical software package. The creation of SAS data sets for the CRS provides greater options for examining the data with specific research questions.

Multi-Year Procedural Development

8. Data gathered at the demonstration units have undergone three distinct phases of development (Figure 2). Initially, the study's attention focused on the campground receipt in terms of defining how and what types of data were collected. Forms went through improvements and were finalized during the early part of the study. Comparison of key variables across projects has provided an assessment of campground market behavior in the Corps.

9. A second stage of development has been the documentation of general results over time, such as reporting on the changes in types of camping equipment. Important trends are highlighted in the report series (e.g., an

CAMPGROUND RECEIPT STUDY

SYSTEM DEVELOPMENT

	PROCEDURES	TRENDS	APPLICATIONS
REPORT 1	DEVELOPMENT OF DATA COLLECTION PROCEDURES	—	—
REPORT 2	DISCUSSION OF POTENTIAL USES	—	—
REPORT 3	FORMS EVALUATED AND IMPROVED	KEY VARIABLES REPORTED	—
REPORT 4	FORM FINALIZED	BROAD TRENDS IDENTIFIED	INITIAL APPLICATIONS
REPORT 5	—	TRENDS EXTENDED	VISITOR ORIGIN APPLICATIONS
REPORT 6	—	TRENDS EXTENDED AND EVALUATED	PROJECT USER PROFILES
CURRENT REPORT	—	TRENDS EXTENDED INCLUDING GOLDEN AGE TRENDS	OCCUPANCY RATE ANALYSIS
FUTURE	DEVELOP AUPS/CRS INTERFACE	TRENDS EXTENDED	MICROCOMPUTER ANALYSIS DEVELOPED

Figure 2. System development of the CRS

increase in camping parties with tents and camping parties with powerboats during the years 1981 through 1984) (Lawrence and Fritschen 1986).

10. The third stage of CRS development has included the use of data for analyses beyond routine summaries and toward a specialized management application. This report is an extension of previous efforts since it reports on salient trends while attempting to illustrate management applications. This is aimed at improving the efficiency of project operations, which will provide for a general understanding of the Corps customer who stays overnight at a Corps campground.

PART II: DATA ANALYSIS

1986-87 CRS Data

11. The data summarized in this report were collected from the 15 projects that participated in the CRS during 1986 and/or 1987. The CRS data were analyzed according to recreation area and project, and for the entire sample of projects. In this section, the project and entire sample data will be described. The recreation area data can be found in Appendices A and B.

Data limitations

12. In 1986 and 1987, the supply of Engineering Form 4457-1 was inadequate to meet the needs of all CRS projects. Since this was not a problem for 1985, Table 1 shows a 3-year continuum. Readers are advised to compare the number of permits issued in 1986 and 1987 to the number issued in 1985 to judge how completely the data in this table represent camping use during that time period. For this reason, only projects with reasonable continuity in the number of camping permits over time were selected for analysis. Projects with an asterisk (*) reflect an adequate supply of forms to permit further analysis.

13. As expected, due to the inadequate supply of forms, there is a considerable drop in the number of camping permits issued during 1986 and 1987 as compared to 1985 (Table 1). At the 15 CRS projects, about one-half as many camping permits were issued in 1986; i.e., 81,495 compared to 146,087 in 1985. In 1987, nine projects participated in the CRS, resulting in 44,531 camping permits issued. Benbrook Lake and Sommerville Lake experimented with a cash register data collection system during 1986 and 1987. Benbrook currently uses the form and Sommerville is in transition toward using the Automated User Permit System (AUPS).

1986 data

14. Campers at the CRS recreation areas accounted for 563,991 recreation days* of use in 1986 (Table 2). The average length of stay ranged from 1.9 nights at Milford Lake and Greers Ferry Lake to 3.3 nights at Lake Barkley and Shenango River Lake. The average for the entire CRS in 1986 was 2.7 nights.

* A recreation day is defined as a visit by one individual to the project for recreation purposes during all of any reasonable portion of a 24-hr period.

Table 1
1986-87 Camping Permit Summary

<u>Project</u>	<u>Number of Permits 1985*</u>	<u>Number of Permits 1986</u>	<u>Number of Permits 1987</u>
Lake Barkley	5,939	4,874*	3,114*
Benbrook Lake	9,864	5,574	--
Greers Ferry Lake	20,210	2,442	--
Hartwell Lake	8,455	9,633*	757
McNary Lock and Dam	3,765	--	--
Milford Lake	4,408	4,847*	1,070
Mississippi Pool 16	1,873	1,630*	1,105*
New Hogan Lake	10,096	1,138	--
Nolin River Lake	5,256	3,344*	2,424*
Lake Oahe	8,086	870	--
Lake Ouachita	8,621	7,844*	7,031*
R. S. Kerr Lock and Dam	3,151	1,556	--
Lake Shelbyville	18,405	7,526	13,110
Shenango River Lake	7,618	5,438	8,520*
Somerville Lake	21,464	16,607	--
West Point Lake	<u>8,876</u>	<u>8,176*</u>	<u>7,400*</u>
CRS total	146,087	81,499	44,531

* In 1986 and 1987, the supply of Engineering Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Therefore, by comparing the number of permits for each project to 1985, a decision was reached to include only those projects reporting "adequate permits" for the 1986-87 trend analysis.

-- Missing data.

15. The size of the camping parties in 1986 averaged 3.4 persons, ranging from 2.2 at New Hogan Lake to 3.8 at Lake Ouachita. Across Projects, 54.9 percent of the parties had previously visited the project. This variable tends to show a broad range in variation between projects as evidenced by the figure of 91.3 percent at Shenango River Lake, to 34.7 percent at Milford Lake. Nearly three-fourths, or 69.3 percent, of the camping parties at the

Table 2
1986 General Use Characteristics

<u>Project</u>	<u>Recreation Days*</u>	<u>Mean Length of Stay Nights</u>	<u>Mean Number in Group</u>	<u>Percent Prior Visits**</u>	<u>Percent Primary Destination**</u>	<u>Percent Golden Age Passport†</u>
Lake Barkley	43,007	3.3	3.3	53.2	59.3	26.2
Benbrook Lake	30,143	2.5	3.2	41.9	67.7	16.7
Greers Ferry Lake	13,599	1.9	3.7	87.2	91.4	8.7
Hartwell Lake	78,016	2.8	3.7	37.7	61.5	17.1
Milford Lake	27,732	1.9	3.2	34.7	50.7	14.8
Mississippi Pool 16	8,449	2.9	2.6	57.2	89.3	3.0
New Hogan Lake	4,360	2.3	2.2	62.8	69.9	16.8
Nolin River Lake	19,894	2.2	3.5	67.9	83.5	7.4
Lake Oahe	3,043	2.3	2.7	63.2	81.0	30.2
Lake Ouachita	66,942	3.2	3.8	61.8	71.1	9.8
R. S. Kerr Lock and Dam	8,410	2.6	3.2	73.7	85.1	14.5
Lake Shelbyville	58,170	4.5	3.2	79.9	94.3	18.7
Shenango River Lake	43,515	3.3	3.5	91.3	97.2	18.9
Somerville Lake	95,144	2.1	3.6	49.9	66.4	15.0
West Point Lake	<u>63,567</u>	<u>2.9</u>	<u>3.4</u>	<u>47.0</u>	<u>52.5</u>	<u>17.7</u>
CRS total††	563,991	2.7	3.4	54.9	69.2	15.8

* Recreation days of use was calculated by multiplying the number in group times the length of stay for each fee receipt. The individual recreation days were then added to produce a project total. Any receipts which had the number in group or length of stay missing were deleted from the calculations. Therefore, this measure of use may be conservative.

** Percent of camping parties.

† Percent of camping permits.

†† Project averages were weighted by the total number of permits for each project to compute CRS averages.

CRS projects indicated that the project was the primary destination for their trip. However at Shenango River Lake, 97.2 percent of the camping parties reported the project as the primary destination for their trip. At the individual projects, the lowest percentage of Golden Age passports was found at Mississippi Pool 16 (3.0 percent), the highest at Lake Oahe (30.2 percent).

Table 3
1986 Distribution of Vehicle Types
(Percent of Camping Groups)*

<u>Project</u>	<u>Car</u>	<u>Truck</u>	<u>Van</u>	<u>Motor Home</u>	<u>Others**</u>
Lake Barkley	11.5	15.1	3.5	3.0	0.1
Benbrook Lake	39.1	50.1	10.8	11.8	0.2
Greers Ferry Lake	1.6	2.5	0.2	0.1	0.1
Hartwell Lake	50.5	49.6	10.9	11.0	0.8
Milford Lake	34.6	54.2	11.4	17.3	0.1
Mississippi Pool 16	29.2	40.5	13.1	29.0	1.5
New Hogan Lake	21.7	51.6	12.0	15.5	0.1
Nolin River Lake	6.0	5.6	1.9	1.3	0.0
Lake Oahe	20.3	43.4	8.4	29.1	0.9
Lake Ouachita	14.9	17.3	4.3	3.4	0.3
R. S. Kerr Lock and Dam	30.2	66.3	6.2	13.6	0.2
Lake Shelbyville	41.5	40.7	16.9	17.8	0.1
Shenango River Lake	56.3	38.7	12.8	14.9	0.5
Somerville Lake	36.7	48.1	10.6	8.5	1.0
West Point Lake	<u>37.0</u>	<u>54.9</u>	<u>12.9</u>	<u>20.6</u>	<u>0.7</u>
CRS total†	33.4	40.8	9.8	11.3	0.5

* These categories are not mutually exclusive. Camping groups could arrive in more than one vehicle type which may account for nationwide totals that exceed 100%.

** The "Others" category includes any mode of transportation that is not listed. This may include such things as motorcycle, bicycle, etc.

† Project averages were weighted by the total number of permits for each project to compute CRS averages.

16. For the 1986 data, an analysis of the type of vehicle, or vehicles, used by camping parties in Table 3 indicates that, on the average, more parties used trucks (40.8 percent) than cars (33.4 percent). The highest percentage of trucks used was at Kerr Lock and Dam (66.3 percent), while the lowest percentage of cars used was at Greers Ferry lake (1.6 percent). Relatively few of the camping groups arrived in vans (9.8 percent), motor homes (11.3 percent), or via other modes of transportation (0.5 percent). The

Table 4
1986 Distribution of Camping Equipment and Powerboats
(Percent of Camping Groups)*

<u>Project</u>	<u>Tent</u>	<u>Pop-up Trailer</u>	<u>Pickup Camper</u>	<u>Travel Trailer</u>	<u>No Camping Equipment</u>	<u>Power- boat</u>
Lake Barkley	11.7	3.7	3.7	7.4	0.3	14.1
Benbrook Lake	32.3	4.5	6.1	21.2	33.1	12.0
Greers Ferry Lake	2.3	0.6	0.2	0.8	0.3	0.5
Hartwell Lake	39.5	14.2	4.7	25.2	0.2	28.8
Milford Lake	32.8	7.0	10.0	29.1	5.1	37.8
Mississippi Pool 16	12.6	5.2	4.6	44.9	0.0	8.3
New Hogan Lake	33.9	2.9	18.0	18.4	25.4	31.5
Nolin River Lake	8.5	0.9	1.9	1.1	0.0	8.1
Lake Oahe	21.3	6.4	14.3	20.9	0.2	39.9
Lake Ouachita	21.9	3.8	2.1	4.9	0.8	16.2
R. S. Kerr Lock and Dam	33.3	3.4	13.9	33.7	2.6	42.1
Lake Shelbyville	38.9	13.3	7.6	23.6	0.4	40.0
Shenango River Lake	31.9	12.7	7.6	27.8	3.8	31.6
Somerville Lake	41.1	4.8	3.6	16.0	17.1	28.4
West Point Lake	<u>36.1</u>	<u>6.3</u>	<u>9.7</u>	<u>19.5</u>	<u>0.0</u>	<u>57.3</u>
CRS total**	31.5	6.8	5.7	18.3	7.3	28.3

* These categories are not mutually exclusive. Camping groups could bring with them multiple types of camping equipment, which may account for nationwide totals that exceed 100%.

** Project averages were weighted by the total number of permits for each project to compute CRS averages.

exceptions were Mississippi Pool 16 and Lake Oahe, where 29.0 percent and 29.1 percent, respectively, of the camping parties reported using motor homes.

17. During 1986, as shown in Table 4, the average type of camping equipment used most often at the CRS projects was a tent (31.5 percent). At Somerville Lake (41.1 percent) of the camping parties used at least one tent. It must be noted, though, that the equipment categories are not mutually exclusive; therefore, tents may not necessarily be the principal means of camping for those groups that reported using them. Overall, the averages of other types of camping equipment included travel trailers (18.3 percent),

Table 5
1987 General Use Characteristics*

<u>Project</u>	<u>Recreation Days**</u>	<u>Mean Length of Stay Nights</u>	<u>Mean Number in Group</u>	<u>Percent Prior Visits†</u>	<u>Percent Primary Destina- tion†</u>	<u>Percent Golden Age/Pass- port††</u>
Lake Barkley	31,499	2.9	3.6	41.3	46.9	30.7
Hartwell Lake	3,878	2.9	2.6	65.6	77.9	39.3
Milford Lake	6,320	2.2	3.2	30.2	36.4	23.5
Mississippi Pool 16	5,903	3.1	2.5	64.9	86.7	0.0
Nolin River Lake	16,816	2.0	3.6	55.7	75.4	8.7
Lake Ouachita	61,674	2.2	3.9	78.8	85.8	11.8
Lake Shelbyville	101,348	3.1	3.4	64.1	71.3	15.0
Shenango River Lake	62,177	2.8	3.7	72.9	82.7	13.5
West Point Lake	<u>61,327</u>	<u>2.9</u>	<u>3.6</u>	<u>56.8</u>	<u>58.1</u>	<u>19.1</u>
CRS total§	350,942	2.7	3.5	63.9	71.5	16.0

* Renewals were not recorded, so the percentages will be artificially inflated.

** Recreation days of use was calculated by multiplying the number in group times the length of stay for each fee receipt. The individual recreation days were then added to produce a project total. Any receipts which had the number in group or length of stay missing were deleted from the calculations. Therefore, this measure of use may be conservative.

† Percent of camping parties.

†† Percent of camping permits.

§ Project averages were weighted by the total number of permits for each project to compute CRS averages.

pickup campers (5.7 percent), and pop-up trailers (6.8 percent). Approximately 7.3 percent of the camping groups indicated that they had no special camping equipment. The project with the largest percentage with no special camping equipment was Benbrook Lake (33.1 percent), followed by New Hogan Lake (25.4 percent). Apparently, for these lakes, day users are willing to pay a camping fee for the use of a camping unit to support activities such as picnicking and boating. In terms of other recreation equipment, approximately one-third of all camping parties brought a powerboat to CRS projects.

1987 data

18. For the year 1987, general use characteristics for the nine reporting projects are found in Table 5. Campers accounted for 350,942 recreation

Table 6
1987 Distribution of Vehicle Types
(Percent of Camping Groups)*

<u>Project</u>	<u>Car</u>	<u>Truck</u>	<u>Van</u>	<u>Motor Home</u>	<u>Others**</u>
Lake Barkley	11.4	14.1	2.7	4.5	6.6
Hartwell Lake	29.4	38.4	14.3	33.6	1.1
Milford Lake	32.5	55.9	9.2	19.6	0.8
Mississippi Pool 16	25.4	41.5	12.8	33.4	1.4
Nolin River Lake	16.5	21.3	6.3	5.0	0.2
Lake Ouachita	12.7	18.9	4.1	4.1	0.2
Lake Shelbyville	8.5	8.5	3.3	3.0	0.1
Shenango River Lake	50.0	38.3	11.4	13.7	0.2
West Point Lake	<u>34.9</u>	<u>52.6</u>	<u>13.5</u>	<u>22.2</u>	<u>1.1</u>
CRS total†	22.4	26.1	7.1	9.8	0.9

* These categories are not mutually exclusive. Camping groups would arrive in more than one vehicle type, which may account for nationwide totals that exceed 100%. Renewals were not recorded, the percentages will be artificially inflated.

** The "Others" category includes any mode of transportation that is not listed. This may include such things as motorcycles, bicycles, etc.

† Project averages were weighted by the total number of permits for each project to compute CRS averages.

days of use. The average length of stay ranged from 2.0 nights at Nolin River Lake to 3.1 nights at Mississippi Pool 16 and Lake Shelbyville. The average for the CRS was 2.7 nights.

19. Size of the camping parties averaged 3.5 persons, ranging from 2.5 at Mississippi Pool 16 to 3.9 persons at Lake Ouachita. Across Projects, 63.9 percent of the parties had previously visited the project. Lake Milford had the lowest previous visitation (30.2 percent) while Lake Ouachita reported the highest (78.8 percent). Approximately 71.5 percent of all camping parties at the CRS projects during 1987 indicated that the project was the primary destination for their trip. Mississippi Pool 16 reported the highest percentage of primary-destination camping parties (86.7 percent) while Milford Lake reported the lowest (36.4 percent). Golden Age passports were used by 16.0 percent of the sample. Lake Nolin reported 8.7 percent of the Golden Age passports in 1987, while Hartwell Lake reported 39.3 percent. As observed in

Table 7
1987 Distribution of Camping Equipment and Powerboats
(Percent of Camping Groups)*

<u>Project</u>	<u>Tent</u>	<u>Pop-up Trailer</u>	<u>Pickup Camper</u>	<u>Travel Trailer</u>	<u>No Camping Equipment</u>	<u>Power- boat</u>
Lake Barkley	8.9	3.8	3.1	6.6	10.1	11.4
Hartwell Lake	10.1	10.5	3.5	35.7	0	9.0
Milford Lake	27.9	5.5	9.7	32.8	5.8	32.5
Mississippi Pool 16	6.3	4.7	3.3	49.4	0.4	4.4
Nolin River Lake	20.0	2.8	7.2	2.8	4.4	23.2
Lake Ouachita	17.7	4.1	1.5	7.5	3.7	18.1
Lake Shelbyville	8.9	2.8	1.1	4.1	2.4	8.0
Shenango River Lake	29.8	10.9	5.6	22.6	9.7	29.3
West Point Lake	<u>36.9</u>	<u>7.5</u>	<u>6.2</u>	<u>23.6</u>	<u>0.1</u>	<u>48.6</u>
CRS total**	19.7	5.4	3.6	13.3	4.2	21.8

* These categories are not mutually exclusive. Camping groups could bring with them multiple types of camping equipment, which may account for nation-wide totals that exceed 100%.

** Project averages were weighted by the total number of permits for each project to compute CRS averages.

the previous year, 1987 camping parties tended to use trucks (26.1 percent) slightly more than cars (22.4 percent) (see Table 6). Relatively few of the camping groups drove vans (7.1 percent), motor homes (9.8 percent), or arrived at the campground in some other mode of transportation (0.9 percent). Exceptions to this low average are found at Hartwell, where 33.6 percent arrived in a motor home, while at Mississippi Pool 16, 33.4 percent reported arriving in a motor home.

20. The type of camping equipment used most often at the CRS projects in 1987 was a tent (19.7 percent). Table 7 also reveals that as little as 6.3 percent of the camping parties used a tent for Mississippi Pool 16, where they tended to instead prefer the use of a travel trailer (49.4 percent). The average use of travel trailers was 13.3 percent, followed by the average use of pop-up trailers (5.4 percent) and pickup campers (3.6 percent). Around one-third of the camping parties brought along a powerboat (21.8 percent). No-camping-equipment figures tended to be low with the exception of Lake

Barkley (10.1 percent) and Shenango River Lake (9.7 percent). A large percentage (44.7 percent) of the campers at Eureka campsite reported no camping equipment, which contributes to the higher lake percentage.

Trend Analysis

21. One of the primary purposes of the CRS was to create a data base that would enable the prediction of trends in recreational use. Each year of data collection improves the predictability of a trend analysis. A comparison of the complete CRS data bases for the years 1981 through 1987 is included in the following pages. Where no bars appear on the bar charts, data were not available or were missing; or the percentage is too small to register on the graph procedure. For example, Mississippi Pool 16 did not participate in the CRS until 1984; therefore the figures reflect this lack of information for the years 1981-83 for all charts.

22. Across the eight projects, mean group size has not changed dramatically since 1981 (Figure 3). For Lake Milford, the averages actually continued to decrease from 3.9 in 1982 to 3.2 in 1987. Mississippi Pool 16 reported some of the smallest averages, with a mean of approximately 2.6 for the 4 years of reporting. (Mississippi Pool 16 was not part of the CRS system prior to 1984.) Mean length of stay (Figure 4) exhibits greater variation than mean group size. The averages ranged from a low of 1.6 for 1981 at Lake Milford to a high of 3.7 during 1982 at Shenango Lake. West Point Lake provided one of the most stable averages over the 7 years.

23. From 1981 to 1986, there was a decrease in the percentage of campers with prior visits to the project and with the project as their primary destination (Figures 5 and 6) for Lake Barkley, and Lake Milford. For other projects a clear increase or decrease is not discernible.

24. Golden Age passport use tended to be highly variable between projects, yet fairly stable within projects with a few exceptions (Figure 7). Percentages ranged from 49.3 for Shenango River Lake in 1985 to 3.0 percent for Mississippi Pool 16 in 1986 (this low percentage was possibly a coding problem). Lake Nolin tended to exhibit a small percentage of Golden Age passport camping parties, whereas Lake Barkley tended to display relatively higher percentages.

25. Parties with cars provided one of the most consistent patterns over the 7-year period (Figure 8). Across projects, increases versus decreases

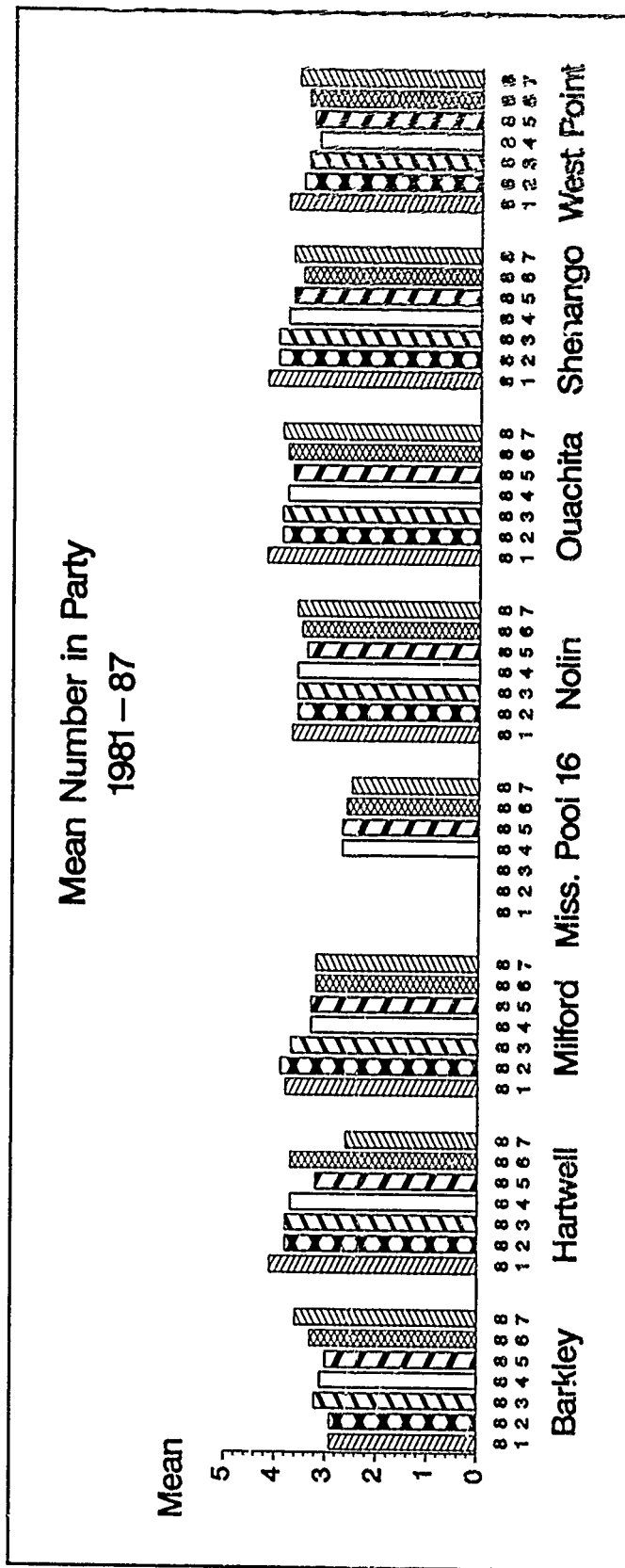


Figure 3. Mean number in party, 1981-87

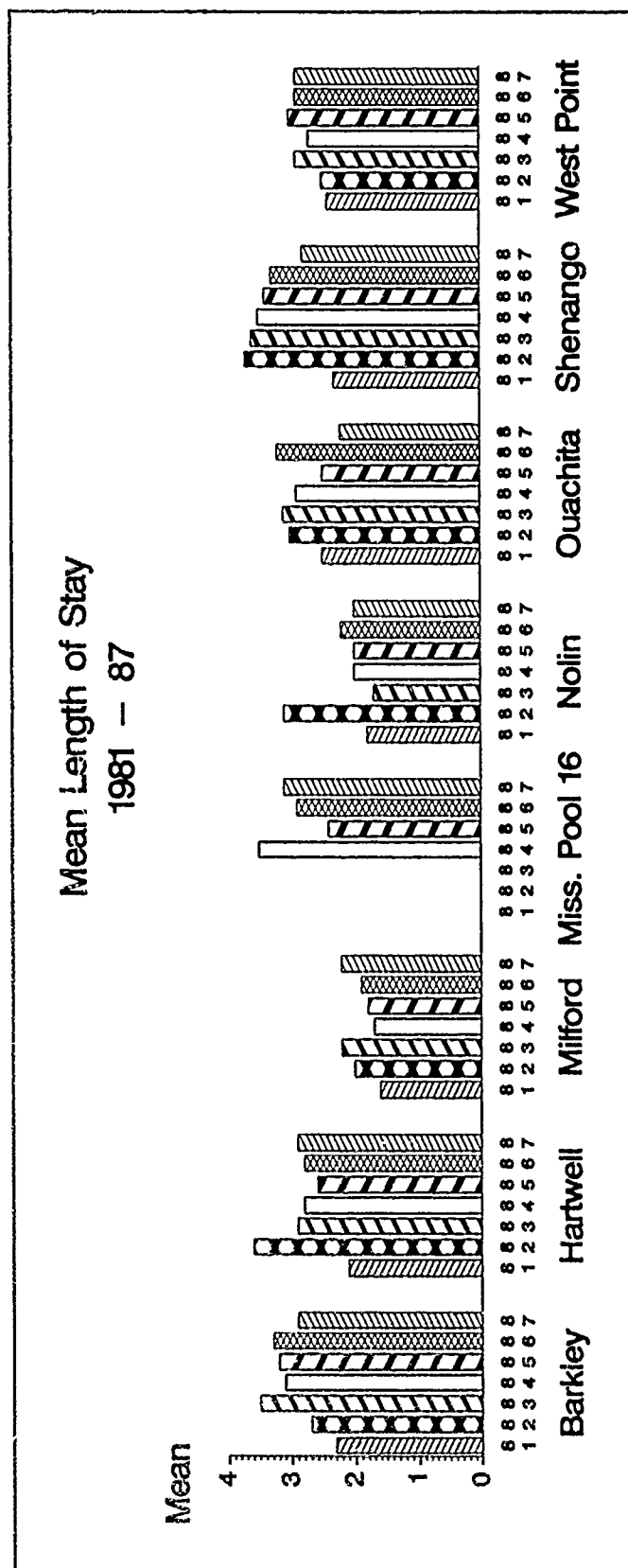


Figure 4. Mean length of stay, 1981-87

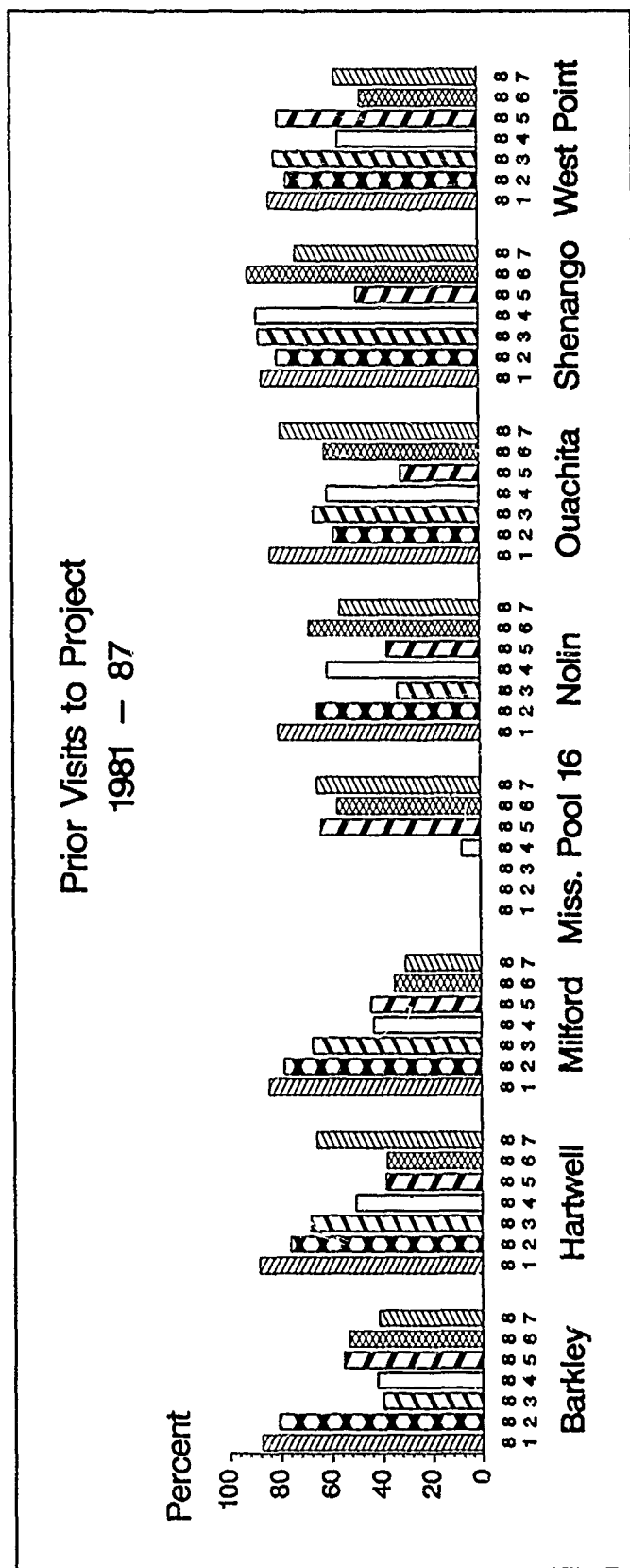


Figure 5. Percent of camping parties with prior visits to the project, 1981-87

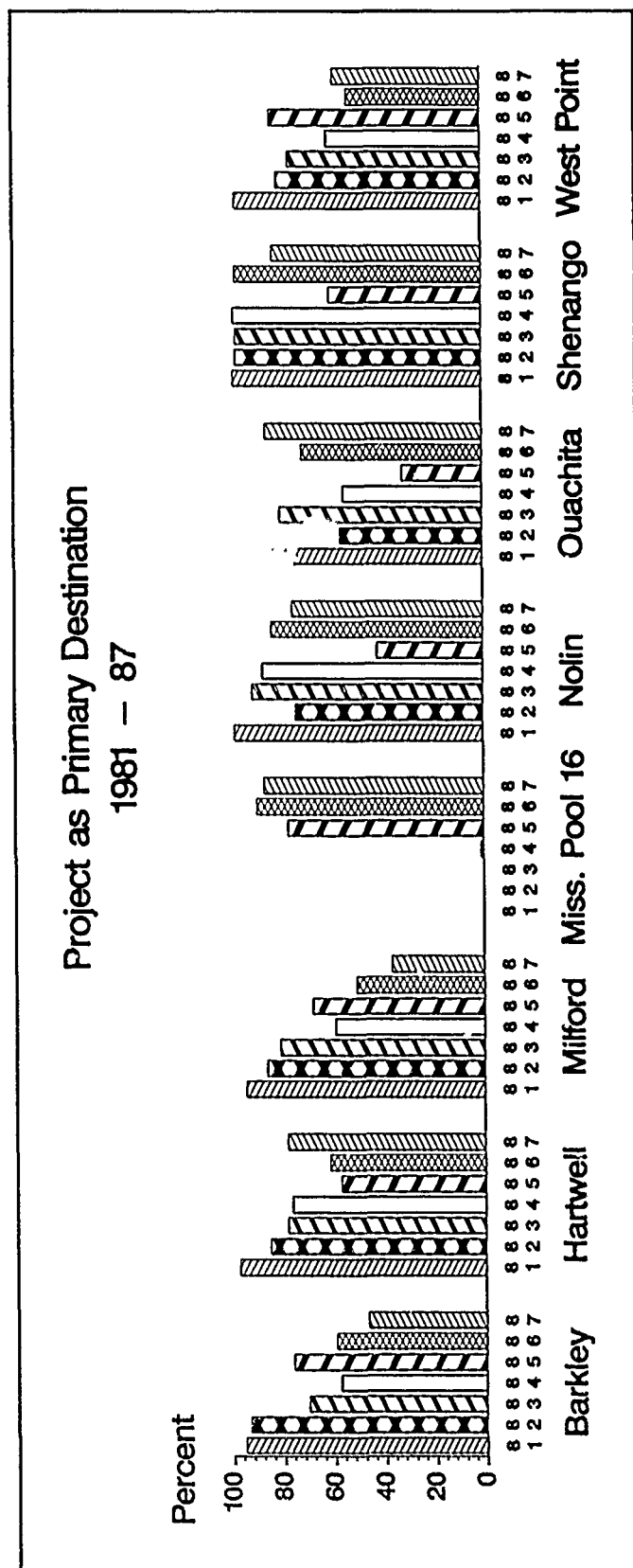


Figure 6. Percent of camping parties having the project as their primary destination, 1981-87

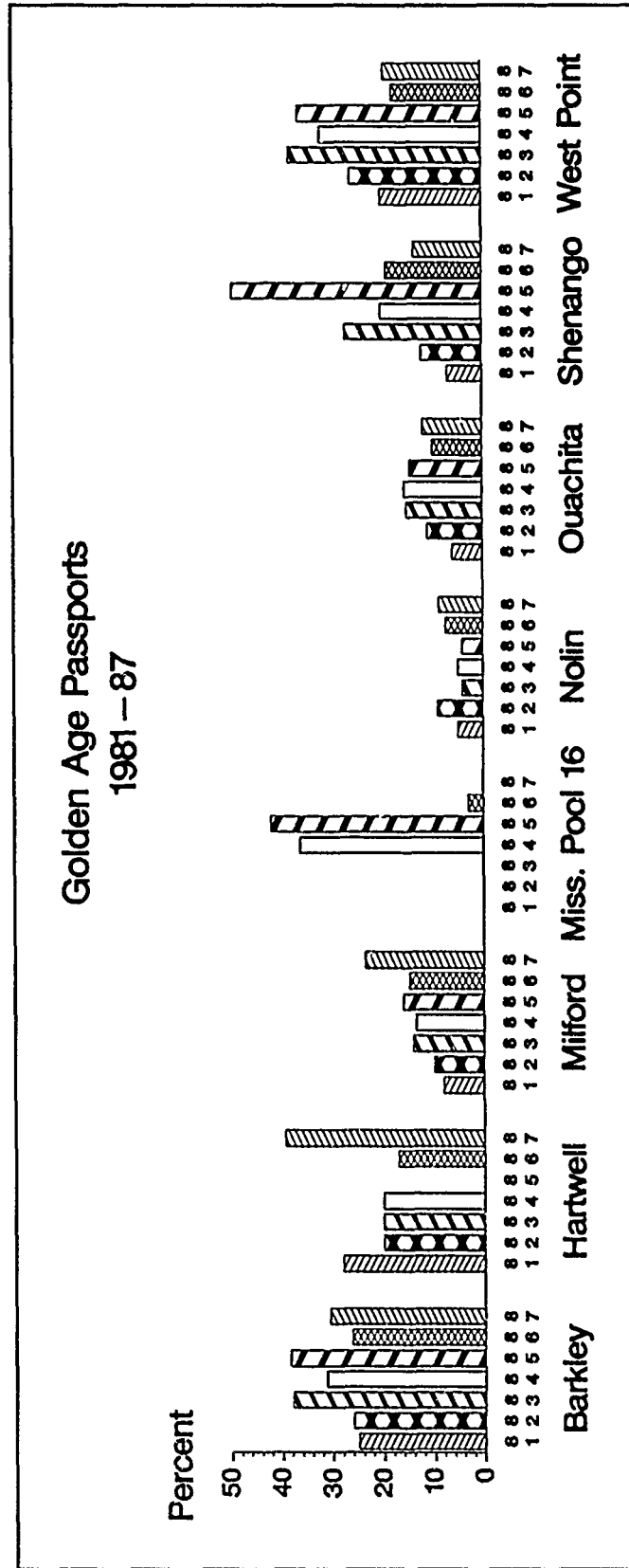


Figure 7. Percent of camping parties using Golden Age or Golden Access passports, 1981-87

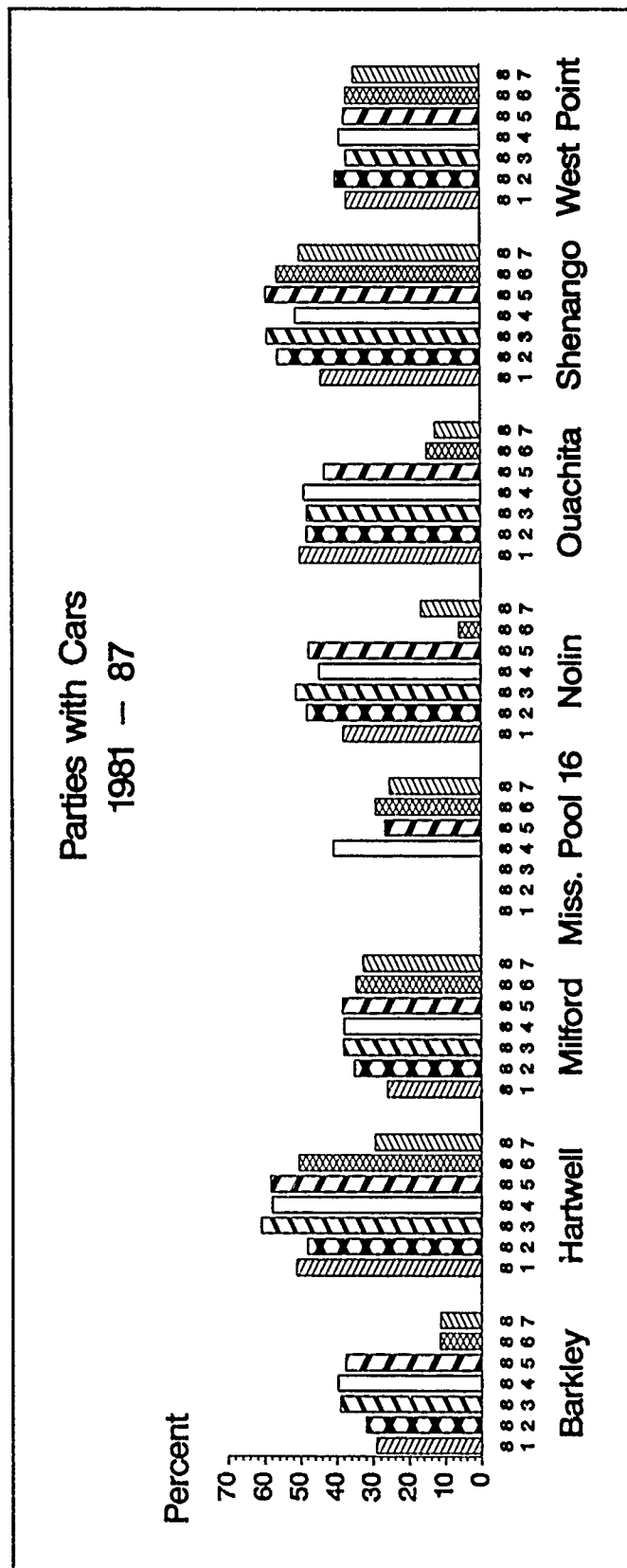


Figure 8. Percent of camping parties with cars, 1981-87

were not clearly evident.* West Point Lake reported the most stable figures with a range from 35.3 to 40.0 percent. Parties with trucks (Figure 9) exhibited a similar pattern of overall stability. The use of trucks tended to slightly outpace cars for nearly every bar chart when Figures 8 and 9 are compared.

26. Figure 10 shows a slight increase in the use of vans by camping parties at most of the eight projects studied.* The use of vans was slightly more popular at Lake Nolin as compared to the other projects overall.

27. Motor home use exhibited considerable variability across projects as can be seen in Figure 11.* The highest use occurred for Mississippi Pool 16, where in 1987, 33.4 percent of the camping parties used a motor home. Overall, the use of motor homes as camping vehicles was small as compared to other types of camping equipment except for pop-up trailers.

28. In Figure 12, parties with tents, a stable pattern within projects was clearly evident.* However, the pattern among projects displayed considerable variability. For example, at Mississippi Pool 16, about 13 percent of the camping parties used tents. This percentage compares to percentages in the mid-60's for Ouachita Lake.

29. The use of pop-up trailers tended to be fairly stable across and within projects (Figure 13). Few patterns are discernible with respect to this type of camping equipment. This was in contrast to camping parties with pickup campers (Figure 14). The use of this type of camping equipment was very low for projects such as Mississippi Pool 16, while pickup campers are popular at Lake Nolin, with a high of 24.7 percent, in 1984, of the camping parties using them.

30. In contrast to the previous figure, Mississippi Pool 16 shows the overall highest use of travel trailers (percentages in the high 40's) while Lake Nolin has the lowest, with percentages ranging from 1 to 7 (Figure 15).* Most projects report the use of this equipment to be at about 20 percent.

31. Few camping parties arrive with no camping equipment as evidenced by Figure 16. Percentages tended to be low, with little difference between or within projects, except for Lake Barkley in 1987 and West Point Lake in 1983.

* The decreases for Lake Barkley, Lake Nolan and Lake Ouachita may be due to inadequate forms.

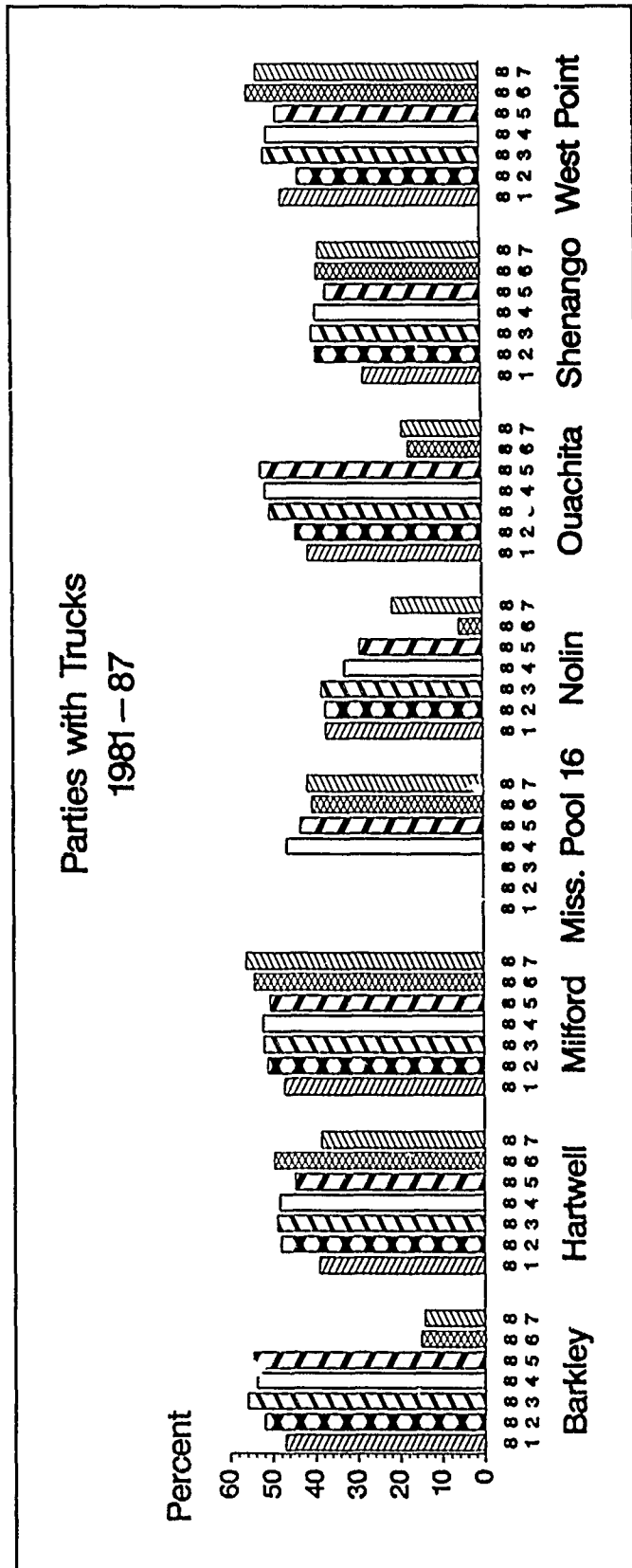


Figure 9. Percent of camping parties with trucks, 1981-87

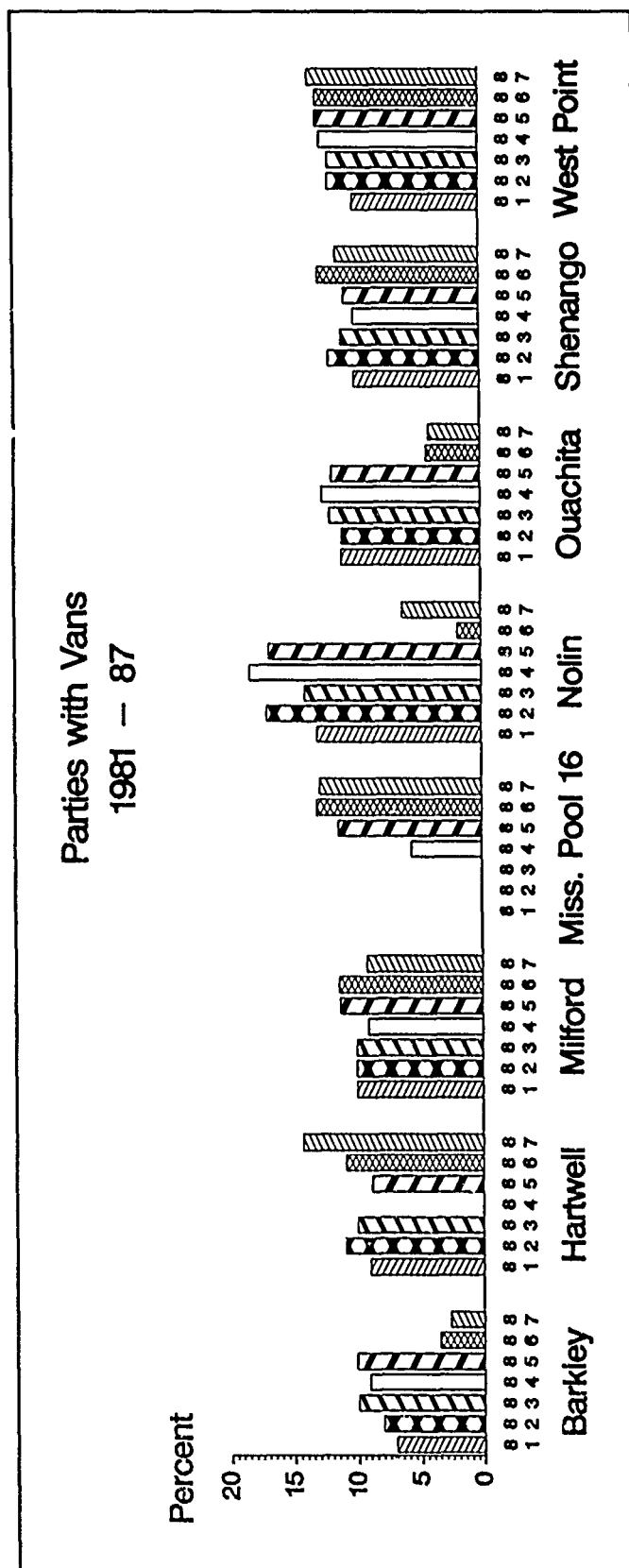


Figure 10. Percent of camping parties with vans, 1981-87

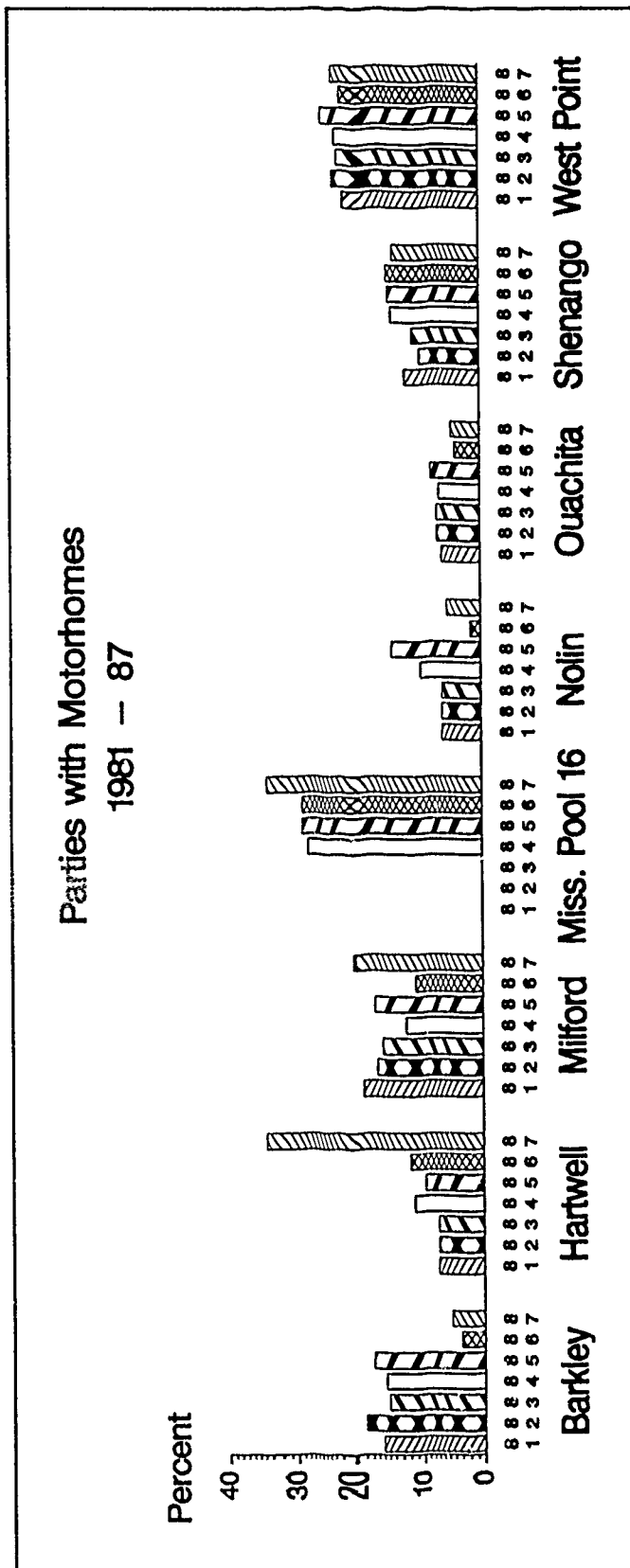


Figure 11. Percent of camping parties with motor homes, 1981-87

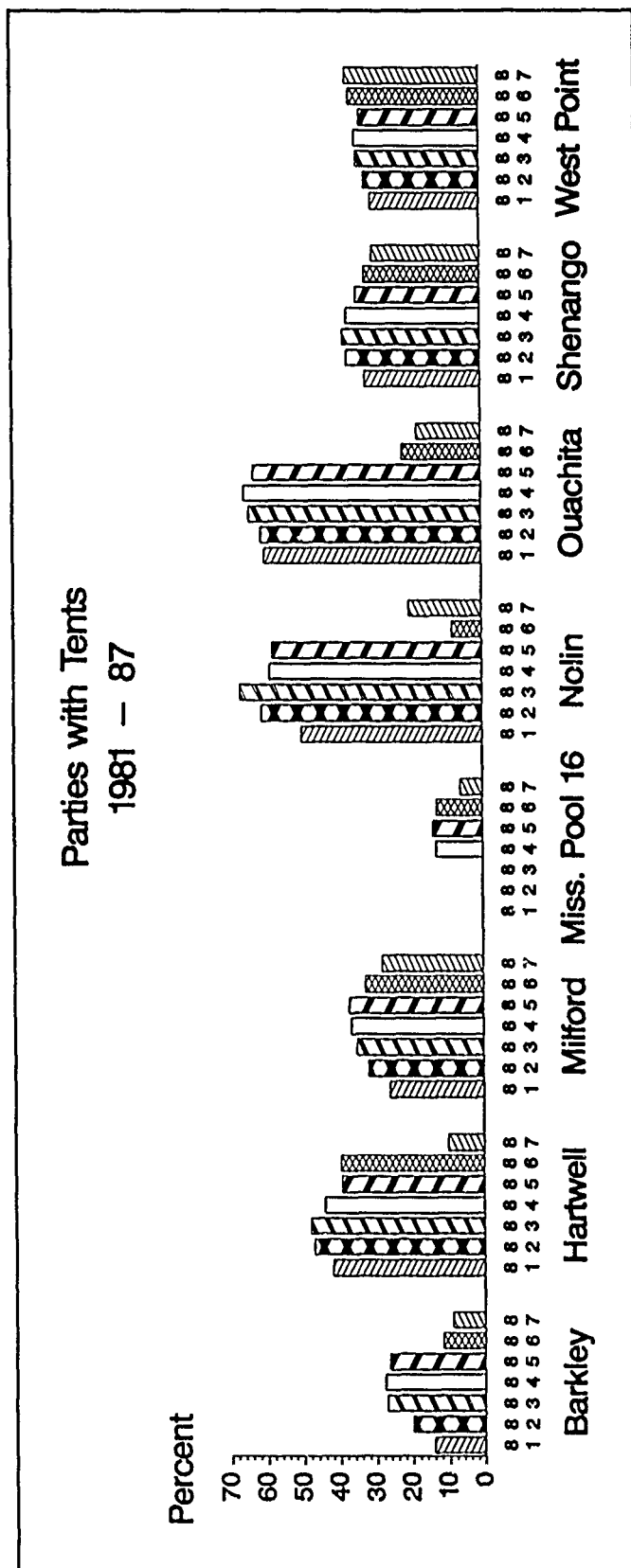


Figure 12. Percent of camping parties with tents, 1981-87

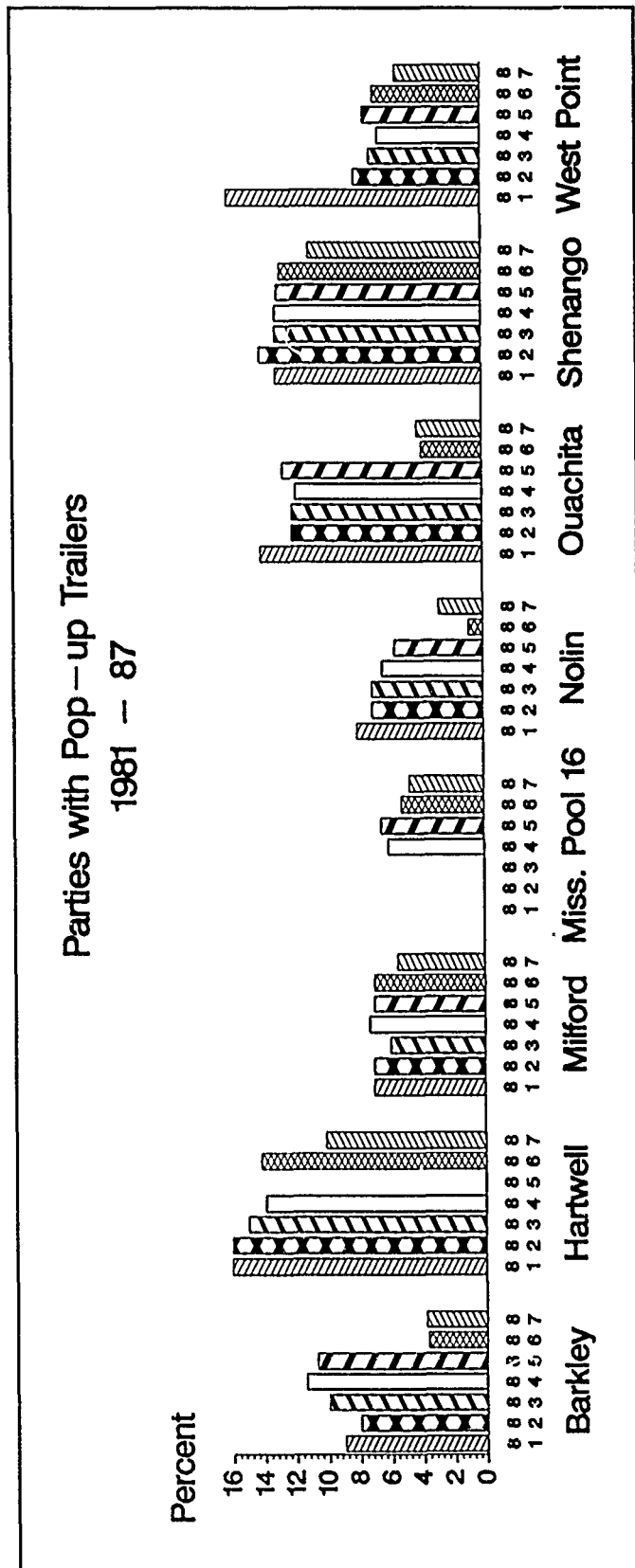


Figure 13. Percent of camping parties with pop-up trailers, 1981-87

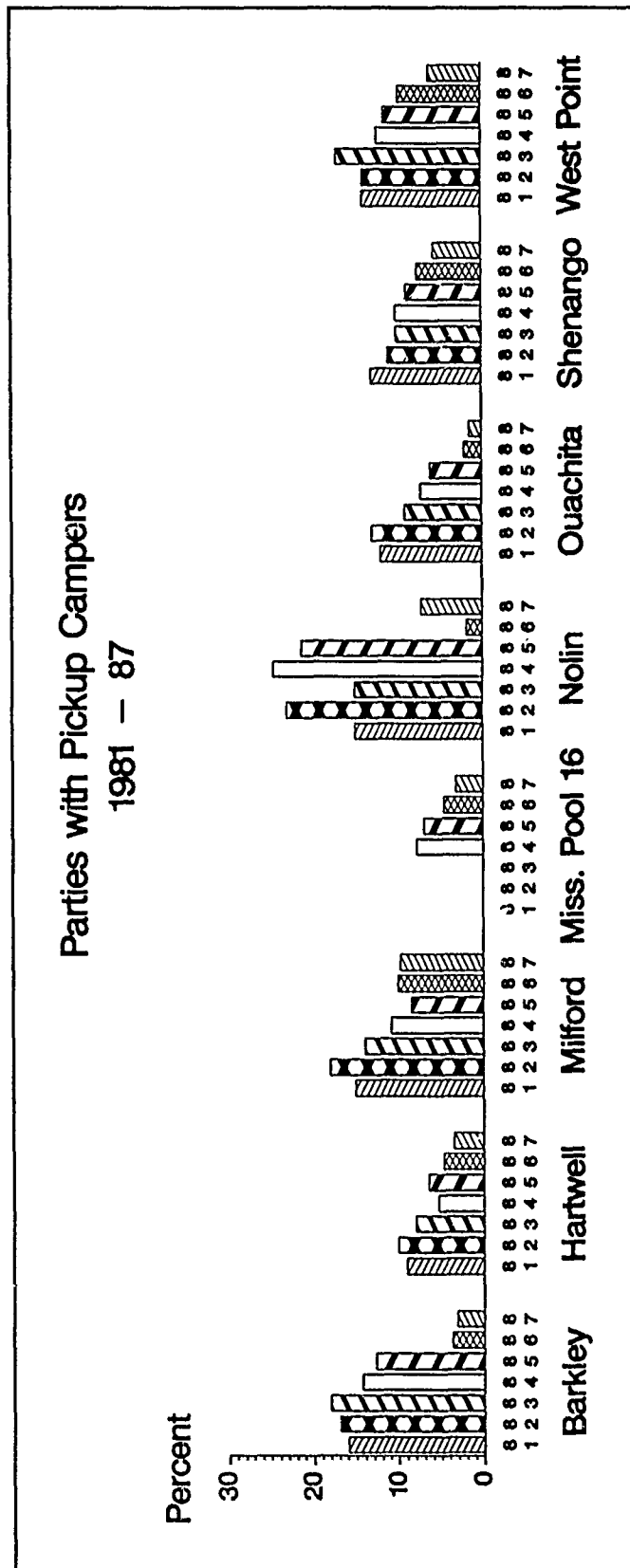


Figure 14. Percent of camping parties with pickup campers, 1981-87

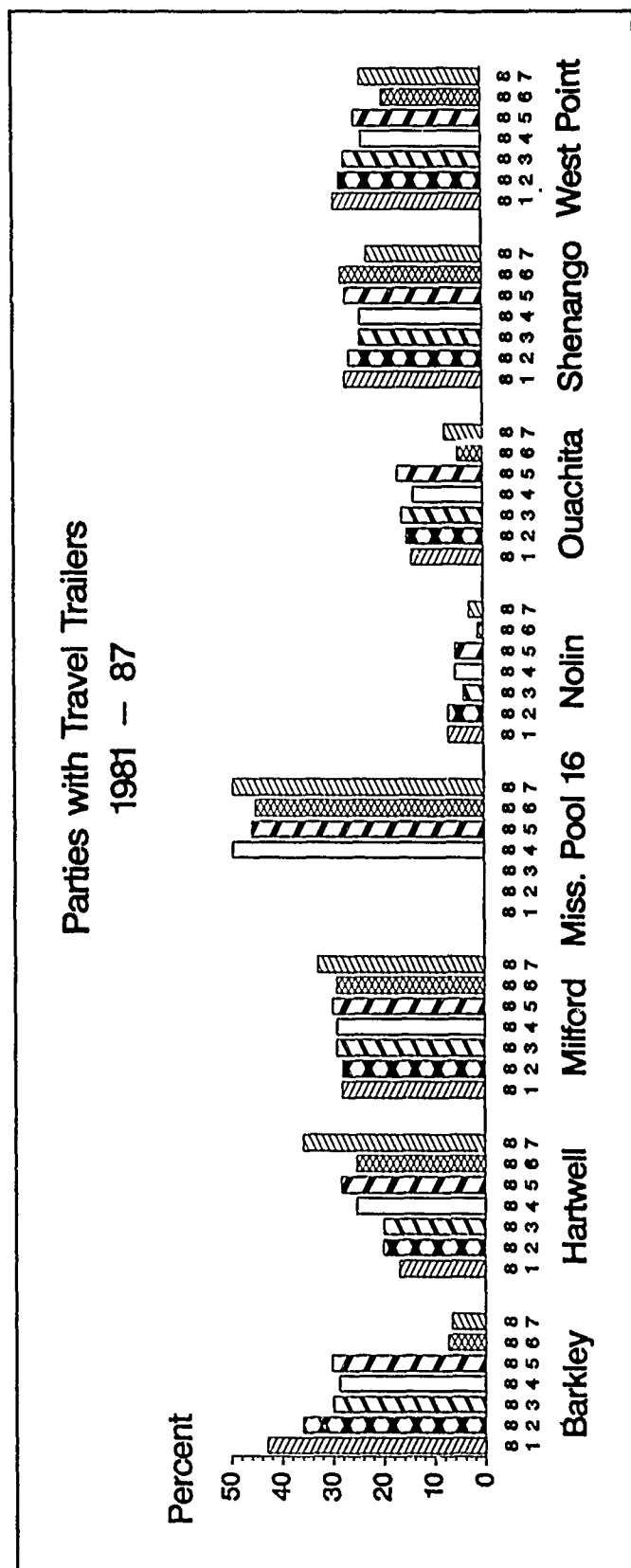


Figure 15. Percent of camping parties with travel trailers, 1981-87

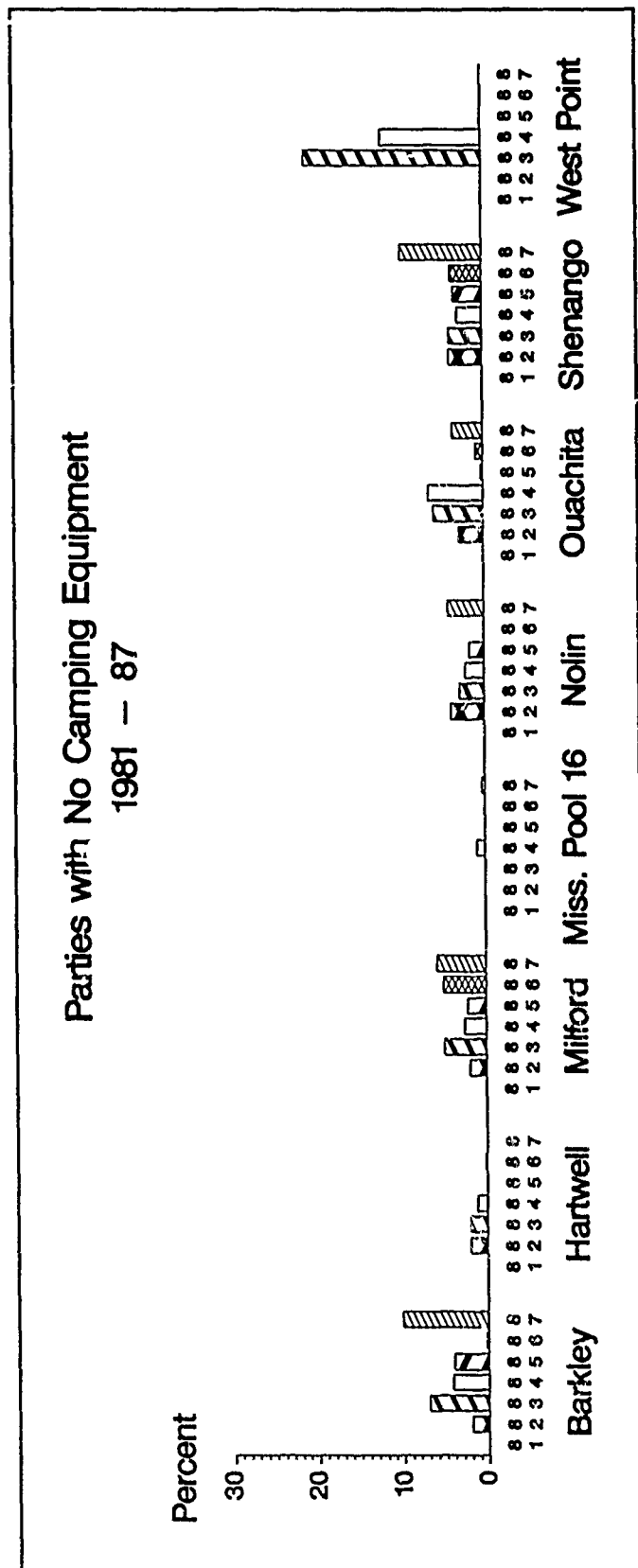


Figure 16. Percent of camping parties with no special camping equipment, 1981-87

32. Except for Mississippi Pool 16, the use of powerboats tended to be relatively uniform across projects (Figure 17).^{*} Powerboat use by camping parties was the most stable at West Point Lake and Shenango River Lake.

Potential Uses of the CRS Data Base

Analysis of visitor origin

33. In Figures 18 and 19, an analysis was performed using ZIP Codes to reveal the origin of camping parties to CRS projects. The figures show how projects differ in relation to their ability to draw visitors from different parts of the country. Shenango, on the western border of Pennsylvania, received visitors from the east coast, parts of the Midwest, the west coast, Texas, and Florida. The majority of these users, however, were from just two states: Pennsylvania and Ohio. In contrast, Oahe, located in North and South Dakota, received visitors from all states except Alaska and South Carolina. In addition, the majority of those users were from a six-state region rather than a two-state region.

Occupancy rates

34. Additional uses of the CRS include an examination of occupancy rates. Occupancy rates are a key indicator of economic viability in the hotel-motel industry. They were also used successfully to reveal a decline of 19 percent in average daily occupancy rates for nationwide camping during the 1978 fuel shortage (LaPage and Cormier 1979).

35. Occupancy rates were examined by year, season, and month (Figures 20, 21, and 22). In Figure 20 Golden Age passports were used to show how camping is distributed across the year. As expected, June, July, and August are the months of highest use. Golden Age passport users tended to follow a similar pattern as non-Golden Age passport users although the pattern is less peaked. This less dramatic increase implies that retired camper use is more uniformly spread over the season as compared to non-retired campers.

36. The results of an examination of the peak-use season across different recreation areas is presented in Figure 21. As can be seen, the different areas show different amounts of use. Arbitrarily selecting 25 percent as a

^{*} The decreases for Lake Barkley, Lake Nolin and Lake Ouachita is due to inadequate forms.

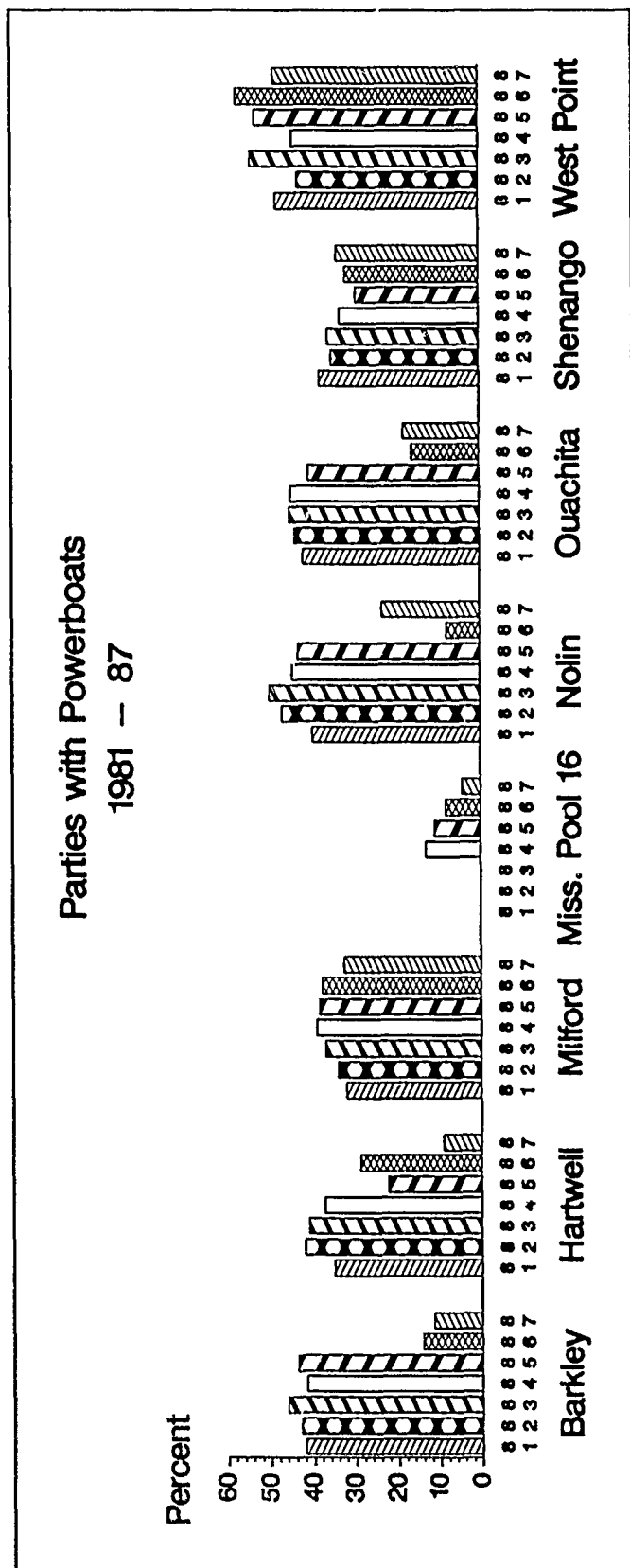


Figure 17. Percent of camping parties with powerboats, 1981-87

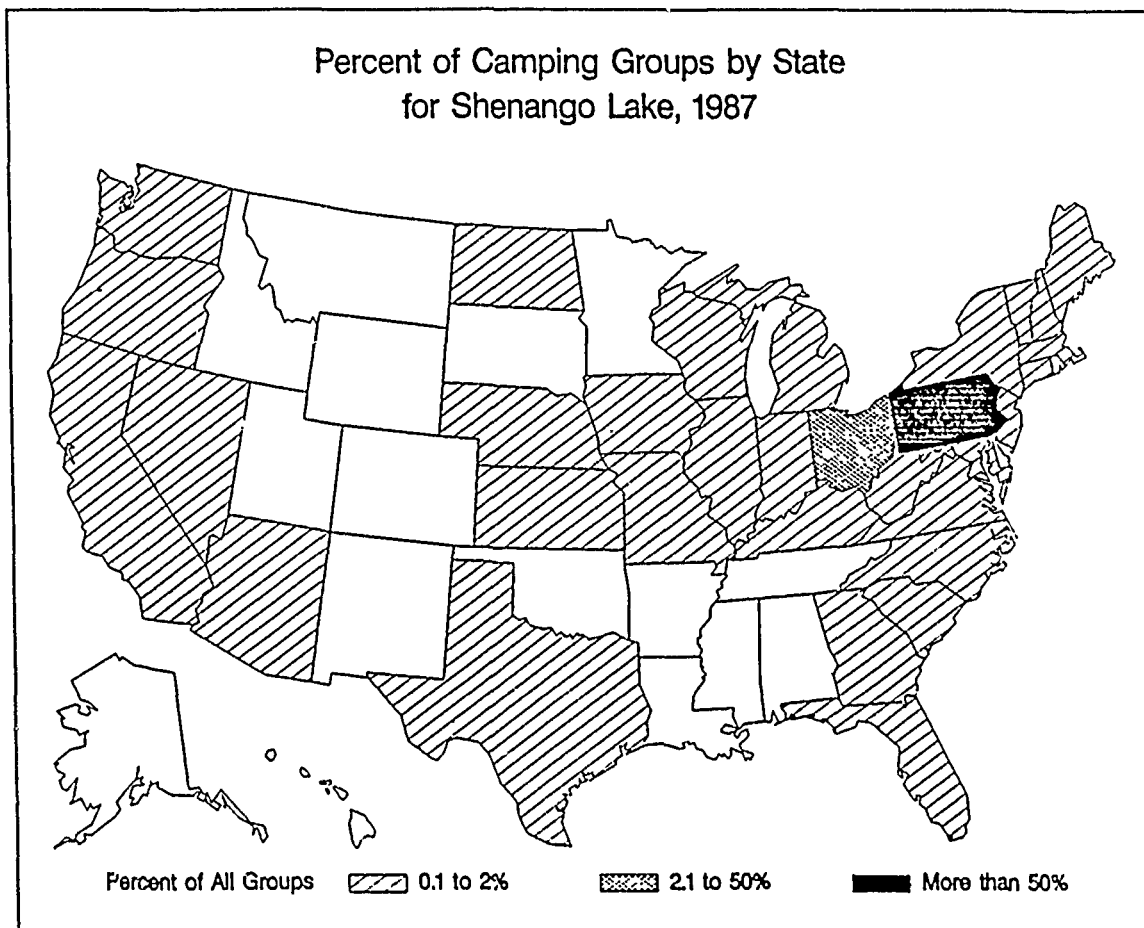


Figure 18. Percent of camping groups by state for Shenango Lake, Pennsylvania, 1987

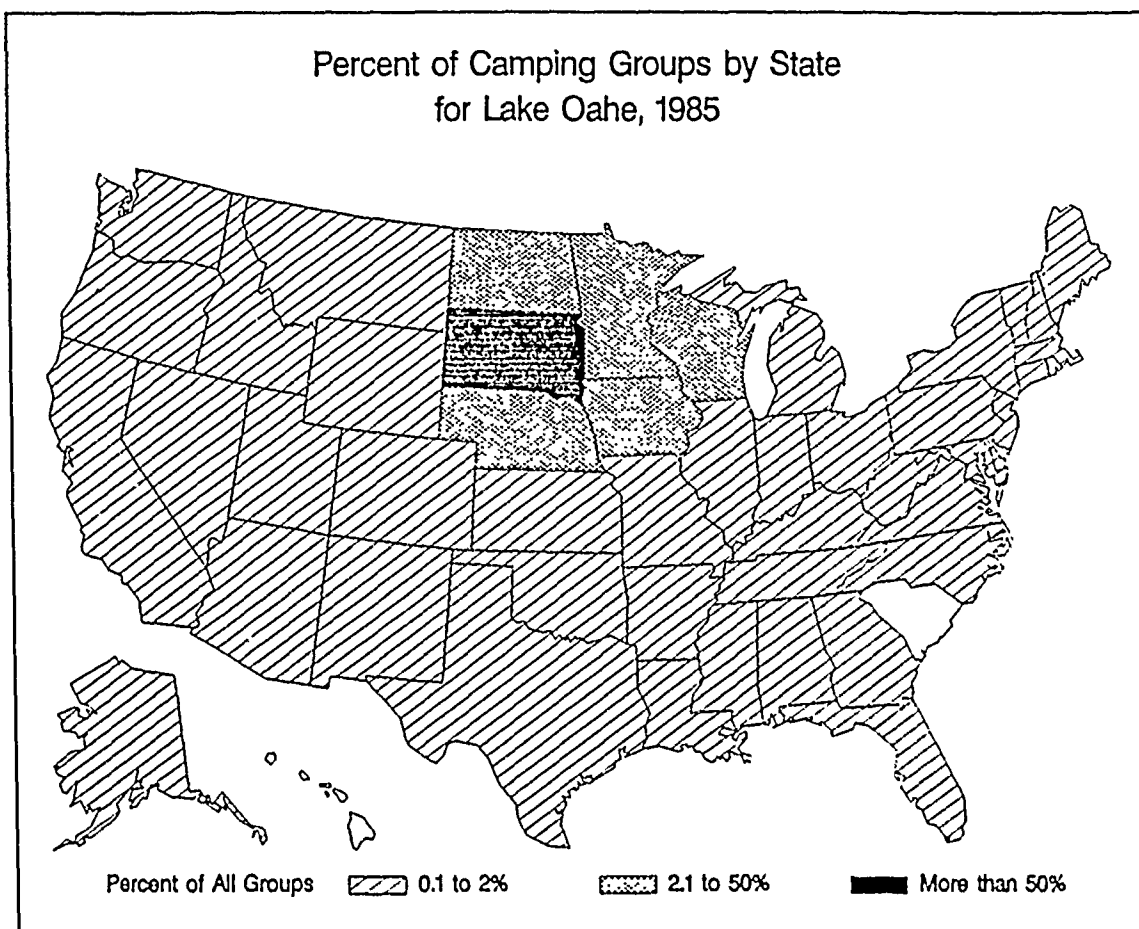


Figure 19. Percent of camping groups by state for Lake Oahe,
North and South Dakota, 1985

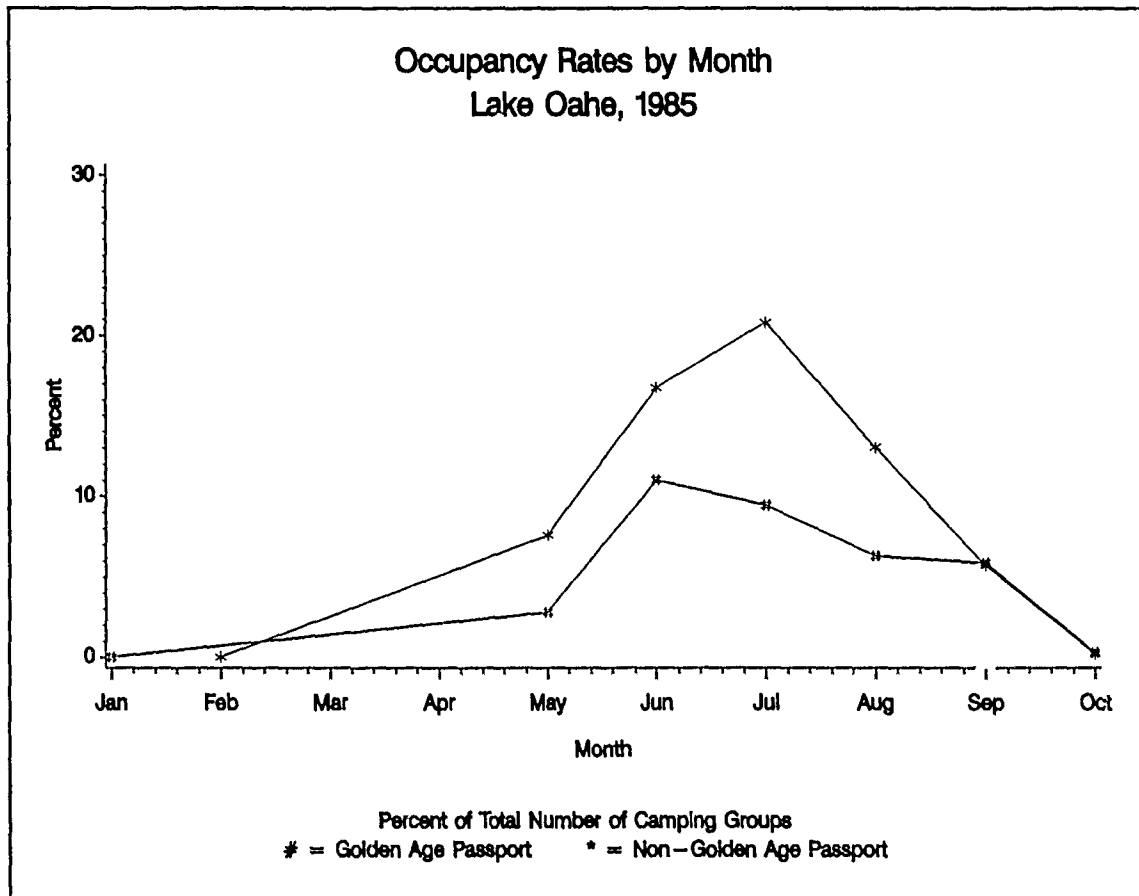


Figure 20. Occupancy rates by month for Lake Oahe, 1985

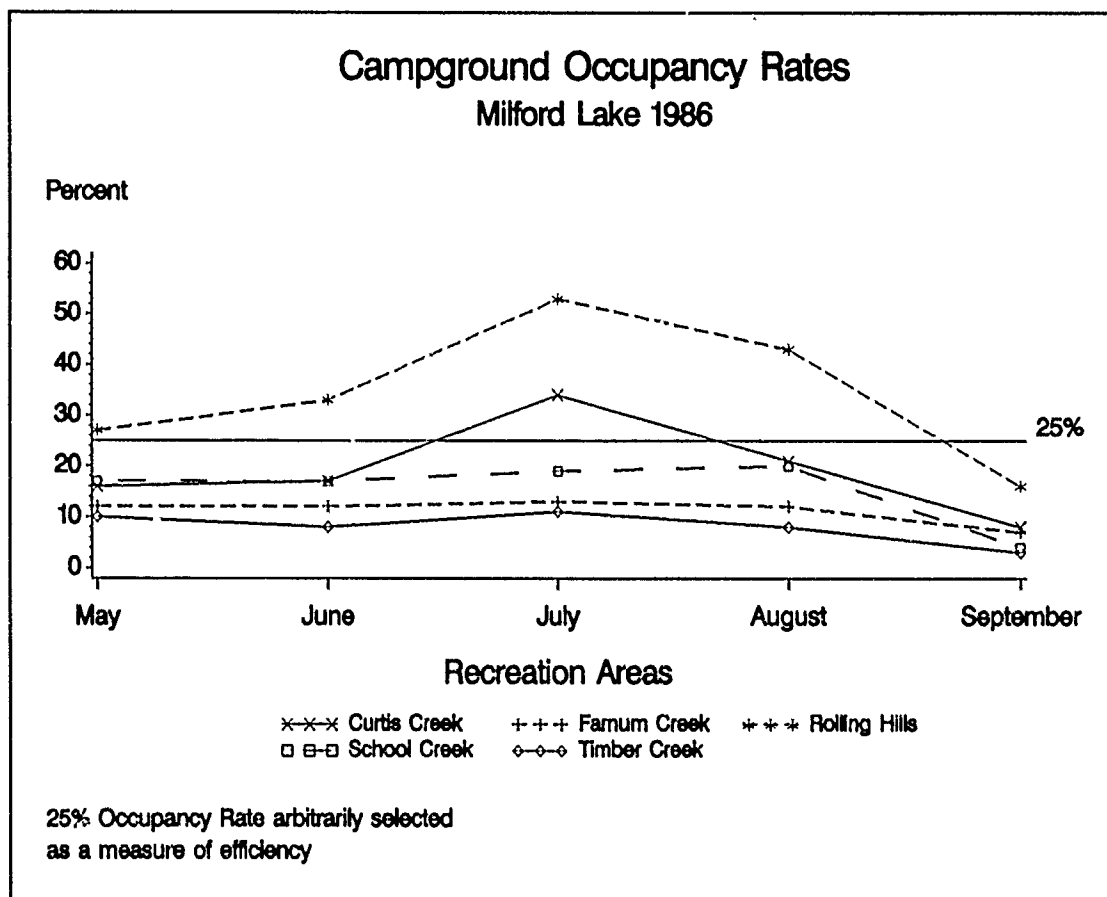


Figure 21. Campground occupancy rates, Milford Lake, 1986

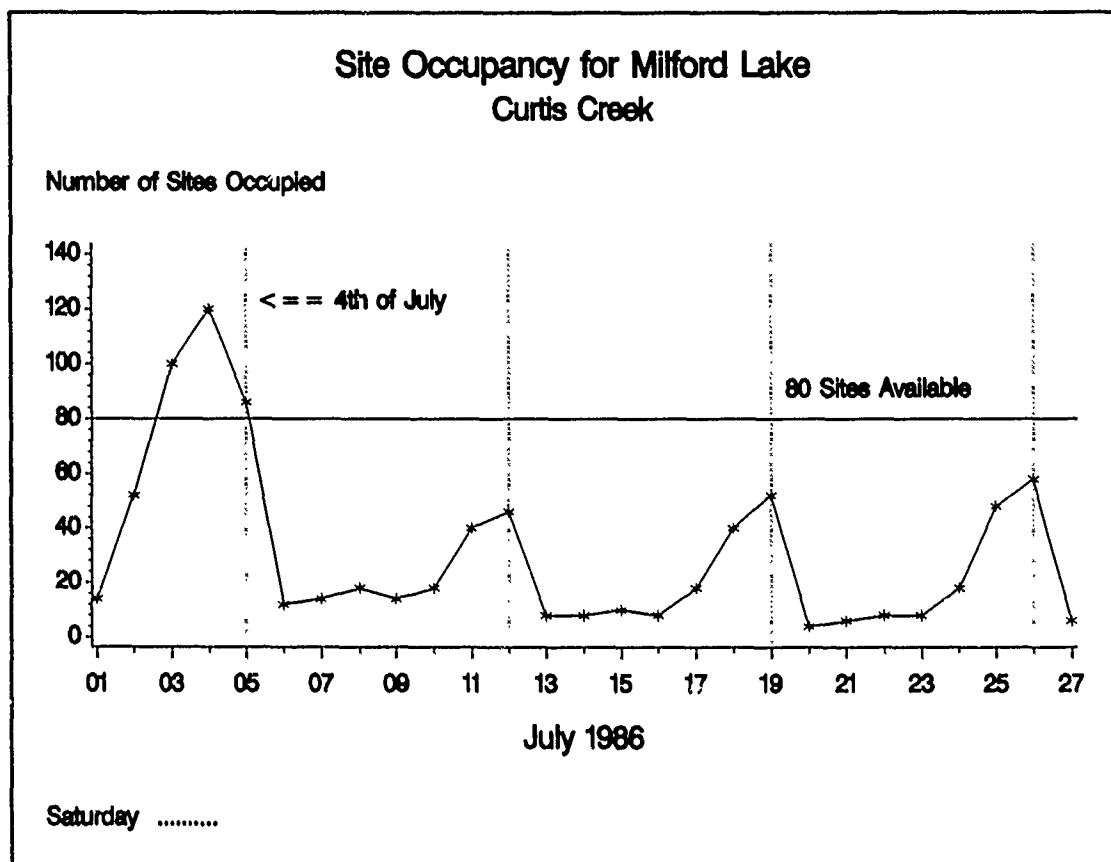


Figure 22. Site occupancy for Milford Lake, Curtis Creek, July 1986

measure of efficiency, a manager would note that only two areas achieved that occupancy rate standard. This type of analysis can help managers evaluate utilization patterns at campgrounds in order to improve efficiency.

37. The final figure was selected to illustrate daily use patterns. Note that the Independence Day holiday weekend produced peak use conditions at Curtis Creek, Milford Lake. It is revealing that use exceeds the 80 sites available. Another repeating pattern is related to the weekly Saturday peak and midweek trough. This may have important implications for scheduling manpower.

PART III: CONCLUSIONS AND RECOMMENDATIONS

Innovative Uses for CRS Data Entry and Output

38. The recent availability of computer technology at the field level has dramatically changed the possibilities regarding data entry and retrieval for analysis and reporting of campground information. The development of the Automated Use Permit System (AUPS) (Fritschen 1988) is an advancement in the direction of computer-aided management information systems. AUPS allows campground attendants to use microcomputers in registering campers and collecting and tracking camping fees. It was designed to incorporate the data requirements of the CRS so that any Corps project utilizing AUPS can collect CRS data. CRS-related questions are displayed by AUPS according to whether a program "switch" is set. This capability eliminates the time spent in key-punching and error checking and provides some on-site data analysis capability.

39. Currently, field-level personnel can use dBASE software to generate reports on variables such as site occupancy, average length of stay, ZIP Codes, average group size, and number of Golden Age permit holders. AUPS provides data that managers can review to resolve problems in a timely manner or to improve the efficiency of operating and maintaining campgrounds. These data are also useful to landscape architects and planners when examining future recreation area designs. For example, District planners can examine key variables like occupancy rates across projects and recreation areas, since the data are gathered using the same methods.

Conclusions

40. Unfortunately the inadequacy of forms hampered the interpretation of trends for all 15 projects. Most of the items tended to be fairly stable within a project with few exceptions. Items to examine in the future are prior visits (a category that showed a decrease for nearly 6 years for two projects) and Golden Age Passports (has not shown a rapid increase, as expected). Other items may be more locally important as managers modify facilities and devise management strategies to keep up with the pace of trends.

41. Origin-destination analysis should be of interest to managers to better understand their user. Occupancy rates are by far one of the most promising applications of the CRS. The illustrations in this report are merely examples for managers to ponder additional uses. The transition from paper forms to AUPS will invariably enhance the management applications of the data.

Recommendations

42. Investment in the CRS effort is beginning to reap the dividends of continual development. Nearly 8 years of data collection have permitted the examination of relationships between variables. Recently, Nolin Lake used 2 years of data to examine the effects of increases in user fees on the amount and distribution of use. Staff at Greers Ferry Lake and the Pittsburgh District have used the information to evaluate current and potential usage of electrical hookups. These data have also been used to prepare marketing information for the Little Rock District. Finally, staff at Lake Shelbyville referred to sales data in planning and preparing visitor information brochures.

43. The use of CRS and AUPS has reached the point where project managers and District personnel can make decisions rapidly in response to on-the-ground changes in the use of Corps areas. This AUPS/CRS combined system has been shown to improve overall efficiency and can address current problems by giving resource managers better control over a constantly changing environment. It is recommended that the CRS effort continue and that researchers and managers search for common ground in devising strategies to better serve the Corps visitor based on current information.

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APPENDIX A: 1986 CRS DATA SUMMARIES FOR INDIVIDUAL
RECREATION AREAS

Table A1
1986 Lake Barkley User Characteristics*,**

<u>Characteristic</u>	<u>Eureka</u>	<u>Canal</u>	<u>Hurricane Creek</u>	<u>Devils Elbow</u>	<u>Bumpus Mills</u>	<u>Project Totals</u>
Recreation days	3,112	23,200	11,545	2,054	3,096	43,007
Mean length of stay, nights	2.5	3.8	3.4	2.1	2.4	3.3
Mean number in group	3.4	3.2	3.4	3.2	3.4	3.3
Percent prior visits†	47.8	46.5	64.0	55.7	61.7	53.2
Percent primary destination†	43.0	46.9	70.7	91.9	78.8	59.3
Percent Golden Age passports††	16.6	31.8	28.7	18.1	9.4	26.2
Percent Golden Access passports††	4.2	5.0	5.6	1.6	2.5	4.5
Number of camping permits	417	2,391	1,207	390	469	4,874
Number of camping groups	356	1,857	951	309	405	3,878

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (4,874) to the number issued in 1985 (5,939) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table A2
1986 Lake Barkley Vehicle and Equipment Type
(Percent of Camping Parties)*, **

<u>Vehicle and Equipment Type</u>	<u>Eureka</u>	<u>Canal</u>	<u>Hurricane Creek</u>	<u>Devils Elbow†</u>	<u>Bumpus Mills</u>	<u>Project Totals</u>
Vehicle						
Car	41.9	3.9	6.9	22.3	21.5	11.5
Truck	55.1	6.0	11.3	28.5	20.3	15.1
Van	11.8	0.6	3.2	7.8	7.4	3.5
Motor home	4.2	2.3	2.8	2.6	5.9	3.0
Other	0.3	0.0	0.0	0.0	0.3	0.1
Camping equipment†						
Tent	48.3	1.5	6.6	32.4	22.0	11.7
Pop-up trailer	16.3	1.3	1.7	3.9	7.3	3.7
Pickup camper	10.1	0.5	4.8	10.0	5.7	3.7
Travel trailer	20.5	5.4	6.9	5.8	7.4	7.4
No camping equipment	0.0	0.0	0.0	0.7	2.7	0.3
Recreational equipment						
Powerboat	38.8	3.7	14.8	31.4	25.2	14.1

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (4,874) to the number issued in 1985 (5,939) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A3
1986 Lake Benbrook User Characteristics*,**

<u>Characteristic</u>	<u>South Holiday</u>	<u>Mustang</u>	<u>Project Totals</u>
Recreation days	16,630	13,513	30,143
Mean length of stay, nights	3.2	1.9	2.5
Mean number in group	3.1	3.3	3.2
Percent prior visits†	46.7	37.5	41.9
Percent primary destination†	95.6	43.0	67.7
Percent Golden Age passports††	27.2	7.4	16.7
Percent Golden Access passports††	2.3	1.1	1.7
Number of camping permits	2,921	2,653	5,574
Number of camping groups	1,934	2,190	4,124

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (5,574) to the number issued in 1985 (9,864) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table A4
1986 Lake Benbrook Vehicle and Equipment Type
(Percent of Camping Parties)*,**

<u>Vehicle and Equipment</u> <u>Type</u>	<u>South</u> <u>Holiday</u>	<u>Mustang</u>	<u>Project</u> <u>Totals</u>
Vehicle			
Car	40.3	38.1	39.1
Truck	50.6	49.7	50.1
Van	11.2	10.5	10.8
Motor home	16.0	8.1	11.8
Other	0.1	0.3	0.2
Camping equipment†			
Tent	19.6	43.5	32.3
Pop-up trailer	4.6	4.4	4.5
Pickup camper	6.8	5.5	6.1
Travel trailer	31.7	11.9	21.2
No camping equipment	36.9	29.6	33.1
Recreational equipment			
Powerboat	8.9	14.7	12.0

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (5,574) to the number issued in 1985 (9,864) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A5
1986 Greers Ferry Lake (Dam Site)
User Characteristics*

<u>Characteristic</u>	<u>Value</u>
Recreation days	13,599
Mean length of stay, nights	2.0
Mean number in group	3.7
Percent prior visits**	87.2
Percent primary destination**	91.4
Percent Golden Age passports†	8.7
Percent Golden Access passports†	1.8
Number of camping permits	2,442
Number of camping groups	1,894

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (2,442) to the number issued in 1985 (20,210) to judge how accurately the data in this table represent actual camping use.

** Percent of camping parties.

† Percent of camping permits.

Table A6
1986 Greers Ferry Vehicle and Equipment Type
(Dam Site)*

<u>Vehicle and Equipment</u> <u>Type</u>	<u>Percentage of Camping Parties</u>
Vehicle	
Car	1.6
Truck	2.5
Van	0.2
Motor home	0.1
Other	0.1
Camping equipment**	
Tent	2.3
Pop-up trailer	0.6
Pickup camper	0.2
Travel trailer	0.8
No camping equipment	0.3
Recreational equipment	
Powerboat	0.5

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (2,442) to the number issued in 1985 (20,210) to judge how accurately the data in this table represent actual camping use.

** Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A7
1986 Hartwell Lake User Characteristics*, **

Characteristic	Watsadlers	River Georgia	Crescent	Springfield	Tran- sient		Mill- town	Chandlers Ferry	Paynes Creek	Asbury	Oconee Point	Twin Lakes	Coneross Park	Project Totals
					Camp Group	Glen Ferry Park								
Recreation days	15,206	309	822	5,030	93	8	3,284	82	6,506	2,212	7,835	24,316	12,313	78,016
Mean length of stay, nights	2.7	1.8	2.4	2.3	1.4	3.0	2.3	2.5	2.6	1.9	2.5	3.0	3.4	2.8
Mean number in group	3.2	4.6	11.4	4.2	6.2	2.0	4.2	3.4	4.0	3.6	4.2	3.6	4.0	3.7
Percent prior visits†	29.3	51.4	7.1	46.9	50.0	50.0	44.0	80.0	60.3	12.3	35.7	49.7	12.6	37.7
Percent primary destination†	63.6	78.4	21.4	54.5	66.7	100.0	44.6	100.0	63.8	10.2	55.3	88.0	26.2	61.5
Percent Golden Age passports††	36.6	2.7	0.0	3.6	0.0	0.0	3.6	0.0	6.9	1.8	1.6	17.8	17.5	17.1
Percent Golden Access passports††	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Number of camping permits	2,218	49	17	631	13	2	420	10	761	357	944	2,939	1,272	9,633
Number of camping groups	1,724	37	14	503	12	2	332	10	627	325	729	2,127	902	7,344

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (9,633) to the number issued in 1985 (8,455) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table A8
1986 Hartwell Lake Vehicle and Equipment Type
(Percent of Camping Parties)* **

Vehicle and Equipment Type	Watsadlers	River Georgia	Cres- cent	Spring- field	Tran- sient Camp Group	Glen Ferry Park	Mill- town	Chandlers Ferry	Paynes Creek	Asbury	Oconee Point	Twin Lakes	Coneross Park	Project Totals
Vehicle														
Car	41.5	64.9	42.9	67.8	33.3	50.0	58.4	30.0	53.1	52.0	52.1	50.4	51.2	50.2
Truck	53.5	37.8	50.0	42.5	33.3	0.0	55.4	70.0	57.1	43.1	47.5	45.6	53.0	49.6
Van	10.6	5.4	14.3	12.3	8.3	0.0	13.6	10.0	9.9	12.9	11.9	9.5	12.5	10.9
Motor home	19.3	8.1	0.0	2.6	0.0	50.0	3.9	0.0	9.3	1.2	1.0	12.6	11.8	11.0
Other	0.3	0.0	0.0	1.4	0.0	0.0	0.3	0.0	2.6	0.3	1.0	0.2	1.8	0.8
Camping equipment†														
Tent	17.1	67.6	85.7	70.6	58.3	50.0	71.7	70.0	42.9	68.0	66.7	34.9	27.2	39.5
Pop-up trailer	11.4	5.4	21.4	13.7	0.0	0.0	17.8	0.0	16.6	8.0	16.5	14.0	18.5	14.2
Pickup camper	4.1	8.1	14.3	5.6	0.0	0.0	4.2	10.0	4.0	4.6	6.4	4.0	6.1	4.7
Travel trailer	42.0	0.0	14.3	6.4	0.0	0.0	3.6	10.0	25.0	7.1	4.7	26.7	33.0	25.2
No camping equipment	0.3	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.2	0.1
Recreational equipment														
Powerboat	18.4	0.0	42.9	37.8	8.3	50.0	47.6	50.0	42.9	38.8	46.6	23.1	23.5	28.8

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (9,633) to the number issued in 1985 (8,455) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A9
1986 Milford Lake User Characteristics*,**

<u>Characteristic</u>	<u>Curtis Creek</u>	<u>Farnum Creek</u>	<u>Rolling Hills</u>	<u>School Creek</u>	<u>Timber Creek</u>	<u>Project Totals</u>
Recreation days	8,323	3,737	9,255	2,952	3,465	27,732
Mean length of stay, nights	2.1	1.8	2.0	1.5	1.5	1.9
Mean number in group	3.6	3.0	3.1	3.3	3.6	3.2
Percent prior visits†	84.9	56.9	3.9	34.5	5.3	34.7
Percent primary destination†	87.6	96.6	6.1	43.3	60.6	50.7
Percent Golden Age passports††	13.4	19.4	19.7	10.9	3.1	14.8
Percent Golden Access passports††	0.7	1.1	1.1	0.2	0.2	0.7
Number of camping permits	1,190	708	1,657	648	644	4,847
Number of camping groups	1,081	706	1,655	624	639	4,705

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (4,847) to the number issued in 1985 (4,408) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table A10
1986 Milford Lake Vehicle and Equipment Type
(Percent of Camping Parties)*,**

<u>Vehicle and Equipment Type</u>	<u>Curtis Creek</u>	<u>Farnum Creek</u>	<u>Rolling Hills</u>	<u>School Creek</u>	<u>Timber Creek</u>	<u>Project Totals</u>
Vehicle						
Car	41.7	35.7	32.3	25.3	36.0	34.6
Truck	64.0	52.6	46.3	64.1	49.9	54.2
Van	9.2	14.9	12.7	9.3	10.2	11.4
Motor home	16.8	20.0	20.9	15.4	7.4	17.3
Other	0.2	0.0	0.1	0.0	0.0	0.1
Camping equipment†						
Tent	32.5	29.8	30.9	32.9	41.8	32.8
Pop-up trailer	7.2	6.0	6.5	4.5	11.3	7.0
Pickup camper	8.1	7.1	8.5	18.1	12.4	10.0
Travel trailer	34.1	33.0	28.1	26.8	21.1	29.1
No camping equipment	13.2	1.4	1.8	8.8	0.5	5.1
Recreational equipment						
Powerboat	50.3	37.1	30.7	52.4	21.1	37.8

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (4,847) to the number issued in 1985 (4,408) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A11
1986 Mississippi Pool 16 User Characteristics*,**

<u>Characteristic</u>	<u>Clark's Ferry</u>	<u>Shady Creek</u>	<u>Project Totals</u>
Recreation days	7,039	1,410	8,449
Mean length of stay, nights	3.2	2.0	2.9
Mean number in group	2.5	2.9	2.6
Percent prior visits†	64.2	31.2	57.2
Percent primary destination†	88.1	93.5	89.3
Percent Golden Age passports††	0.3	13.0	3.0
Percent Golden Access passports††	0.0	2.8	0.6
Number of camping permits	1,311	319	1,630
Number of camping groups	917	247	1,164

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (1,630) to the number issued in 1985 (1,873) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table A12
1986 Mississippi Pool 16 Vehicle and Equipment Type
(Percent of Camping Parties)*,**

<u>Vehicle and Equipment Type</u>	<u>Clark's Ferry</u>	<u>Shady Creek</u>	<u>Project Totals</u>
Vehicle			
Car	27.4	36.0	29.2
Truck	44.0	27.5	40.5
Van	13.1	13.0	13.1
Motor home	32.1	17.8	29.0
Other	1.2	2.4	1.5
Camping equipment†			
Tent	6.5	35.2	12.6
Pop-up trailer	4.6	7.8	5.2
Pickup camper	3.2	9.7	4.5
Travel trailer	50.5	24.3	44.9
No camping equipment	0.0	0.0	0.0
Recreational equipment			
Powerboat	8.4	8.1	8.3

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (1,630) to the number issued in 1985 (1,873) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A13
1986 New Hogan Lake (Acorn Camp Recreation Area)
User Characteristics*

<u>Characteristic</u>	<u>Value</u>
Recreation days	4,360
Mean length of stay, nights	2.3
Mean number in group	2.2
Percent prior visits**	62.8
Percent primary destination**	69.9
Percent Golden Age passports†	16.8
Percent Golden Access passports†	1.2
Number of camping permits	1,138
Number of camping groups	917

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (1,138) to the number issued in 1985 (10,096) to judge how accurately the data in this table represent actual camping use.

** Percent of camping parties.

† Percent of camping permits.

Table A14

1986 New Hogan Lake (Acorn Camp Recreation Area)Vehicle and Equipment Type*

<u>Vehicle and Equipment Type</u>	<u>Percent of Camping Parties</u>
Vehicle	
Car	21.7
Truck	51.6
Van	12.0
Motor home	15.5
Other	0.1
Camping equipment**	
Tent	33.9
Pop-up trailer	2.9
Pickup camper	18.0
Travel trailer	18.4
No camping equipment	25.4
Recreational equipment	
Powerboat	31.5

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (1,138) to the number issued in 1985 (10,096) to judge how accurately the data in this table represent actual camping use.

** Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A15
1986 Nolin River Lake User Characteristics*,**

<u>Characteristic</u>	<u>Dog Creek</u>	<u>Wax</u>	<u>Moutardier</u>	<u>Project Totals</u>
Recreation days	1,910	4,885	13,099	19,894
Mean length of stay, nights	1.8	2.0	2.4	2.2
Mean number in group	3.6	3.5	3.5	3.5
Percent prior visits†	43.3	62.5	75.1	67.9
Percent primary destination†	55.7	92.7	84.8	83.5
Percent Golden Age passports††	9.5	6.9	7.2	7.4
Percent Golden Access passports††	0.7	1.6	0.4	0.7
Number of camping permits	387	846	2,111	3,344
Number of camping groups	305	686	1,563	2,554

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (3,344) to the number issued in 1985 (5,256) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table A16
1986 Nolin River Lake Vehicle and Equipment Ty
(Percent of Camping Parties)*,**

<u>Vehicle and Equipment</u> <u>Type</u>	<u>Dog Creek</u>	<u>Wax</u>	<u>Moutardier</u>	<u>Project</u> <u>Totals</u>
Vehicle				
Car	12.5	7.4	4.1	6.0
Truck	4.6	8.9	4.4	5.6
Van	2.6	3.4	1.2	1.9
Motor home	3.6	1.2	1.0	1.3
Other	0.0	0.0	0.0	0.0
Camping equipment†				
Tent	15.1	11.7	5.8	8.5
Pop-up trailer	1.0	1.3	0.8	0.9
Pickup camper	4.3	1.0	1.8	1.9
Travel trailer	0.3	1.2	1.2	1.1
No camping equipment	0.0	0.0	0.0	0.0
Recreational equipment				
Powerboat	14.1	10.1	6.0	8.1

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (3,344) to the number issued in 1985 (5,256) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A17
1986 Lake Oahe User Characteristics*,**

<u>Characteristic</u>	<u>Downstream South</u>	<u>Downstream North</u>	<u>Project Totals</u>
Recreation days	759	2,284	3,043
Mean length of stay, nights	1.6	2.5	2.3
Mean number in group	3.1	2.5	2.7
Percent prior visits†	55.3	65.9	63.2
Percent primary destination†	79.4	81.5	81.0
Percent Golden Age passports††	11.4	36.8	30.2
Percent Golden Access passports††	1.4	2.2	2.0
Number of camping permits	189	681	870
Number of camping groups	141	405	546

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (870) to the number issued in 1985 (8,086) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table A18
1986 Lake Oahe Vehicle and Equipment Type
(Percent of Camping Parties)*,**

<u>Vehicle and Equipment Type</u>	<u>Downstream South</u>	<u>Downstream North</u>	<u>Project Totals</u>
Vehicle			
Car	30.5	16.8	20.3
Truck	44.0	43.2	43.4
Van	10.6	7.7	8.4
Motor home	15.6	33.8	29.1
Other	0.7	1.0	0.9
Camping equipment†			
Tent	41.8	14.1	21.3
Pop-up trailer	8.5	5.7	6.4
Pickup camper	14.2	14.3	14.3
Travel trailer	14.9	23.0	20.9
No camping equipment	0.0	0.3	0.2
Recreational equipment			
Powerboat	22.0	46.2	40.0

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (870) to the number issued in 1985 (8,086) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A19
1986 Lake Ouachita User Characteristics*,**

<u>Characteristic</u>	<u>Denby Point</u>	<u>Tompkins Bend</u>	<u>Joplin</u>	<u>Crystal Springs</u>	<u>Brady Mountain</u>	<u>Project Totals</u>
Recreation days	17,137	9,430	9,886	11,009	19,480	66,942
Mean length of stay, nights	4.0	3.1	3.1	2.7	3.0	3.2
Mean number in group	3.7	3.7	4.0	3.8	3.8	3.8
Percent prior visits†	59.9	28.5	70.7	62.7	74.8	61.8
Percent primary destination†	87.9	29.5	73.4	66.0	81.7	71.1
Percent Golden Age passports††	21.6	7.9	5.3	7.3	6.0	9.8
Percent Golden Access passports††	4.4	2.3	1.8	0.8	1.3	2.1
Number of camping permits	1,928	1,065	1,110	1,430	2,311	7,844
Number of camping groups	1,161	797	762	1,026	1,613	5,359

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (7,844) to the number issued in 1985 (8,621) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table A20
1986 Lake Ouachita Vehicle and Equipment Type
(Percent of Camping Parties)*,**

<u>Vehicle and Equipment Type</u>	<u>Denby Point</u>	<u>Tompkins Bend</u>	<u>Joplin</u>	<u>Crystal Springs</u>	<u>Brady Mountain</u>	<u>Project Totals</u>
Vehicle						
Car	10.8	12.9	17.5	16.1	16.9	14.9
Truck	18.0	19.8	18.0	13.6	17.5	17.3
Van	4.5	3.6	4.7	4.0	4.3	4.3
Motor home	7.1	3.5	2.8	2.1	1.7	3.4
Other	0.2	0.1	0.8	0.2	0.3	0.3
Camping equipment†						
Tent	10.8	20.1	26.1	25.5	26.5	21.9
Pop-up trailer	3.8	5.5	2.9	2.2	4.2	3.8
Pickup camper	2.5	3.3	1.6	1.4	1.9	2.1
Travel trailer	12.1	5.1	1.8	2.3	2.7	4.9
No camping equipment	3.3	0.0	0.1	0.1	0.3	0.8
Recreational equipment						
Powerboat	15.3	22.7	18.9	12.6	14.8	16.2

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (7,844) to the number issued in 1985 (8,621) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A21

1986 R. S. Kerr Lock and Dam User Characteristics*,**

<u>Characteristic</u>	<u>Applegate Cove</u>	<u>Short Mountain Cove</u>	<u>Cowling- ton Point</u>	<u>Gore Landing</u>	<u>Sallisaw Creek</u>	<u>Project Totals</u>
Recreation days	3,573	750	2,880	746	461	8,410
Mean length of stay, nights	3.0	1.8	2.7	2.3	1.6	2.6
Mean number in group	3.1	3.2	3.3	3.0	4.0	3.2
Percent prior visits†	69.8	80.3	80.5	65.6	65.7	73.7
Percent primary destination†	79.9	89.8	90.1	89.8	74.3	85.1
Percent Golden Age passports††	18.9	8.8	15.6	5.5	8.6	14.5
Percent Golden Access passports††	6.5	2.9	7.1	3.1	0.0	5.4
Number of camping permits	646	177	490	163	80	1,556
Number of camping groups	433	137	353	128	70	1,121

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (1,556) to the number issued in 1985 (3,151) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table A22
1986 R. S. Kerr Lock and Dam Vehicle and Equipment Type
(Percent of Camping Parties)*,**

<u>Vehicle and Equipment Type</u>	<u>Apple- gate Cove</u>	<u>Short Mountain Cove</u>	<u>Cowling- ton Point</u>	<u>Gore Landing</u>	<u>Sal- lisaw Creek</u>	<u>Project Totals</u>
Vehicle						
Car	31.9	29.2	29.5	26.6	32.9	30.2
Truck	56.6	71.5	76.5	61.7	72.9	66.3
Van	5.3	5.8	7.6	4.7	7.1	6.2
Motor home	18.5	8.8	8.8	17.2	10.0	13.6
Other	0.0	0.0	0.3	0.8	0.0	0.2
Camping equipment†						
Tent	28.4	44.5	26.4	46.1	52.9	33.7
Pop-up trailer	1.2	3.7	5.7	1.6	8.6	3.4
Pickup camper	9.7	24.1	13.0	18.6	15.7	13.9
Travel trailer	40.4	19.7	41.6	13.3	17.1	33.7
No camping equipment	1.4	3.7	4.5	0.8	1.4	2.6
Recreational equipment						
Powerboat	34.4	45.3	39.9	64.8	52.9	42.1

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (1,556) to the number issued in 1985 (3,151) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A23

1986 Lake Shelbyville User Characteristics*,**

Characteristic	Opossum Creek	Coon Creek	Lone Point	Lithia Springs	Forrest W. Wood	Whitley Creek	Project Totals
Recreation days	1,178	23,677	1,116	16,766	14,550	883	58,170
Mean length of stay, nights	2.7	7.0	2.0	3.2	4.7	4.4	4.5
Mean number in group	3.2	3.5	3.9	3.1	3.0	3.2	3.2
Percent prior visits†	58.5	85.4	35.9	69.6	98.7	85.7	79.9
Percent primary destination†	64.8	96.7	36.6	97.9	98.7	85.7	94.3
Percent Golden Age passports††	4.2	12.3	5.5	16.9	31.1	7.1	18.7
Percent Golden Access passports††	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Number of camping permits	202	2,855	159	2,264	1,923	123	7,526
Number of camping groups	142	954	145	1,655	1,111	56	4,063

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (7,526) to the number issued in 1985 (18,405) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table A24

1986 Lake Shelbyville Vehicle and Equipment Type(Percent of Camping Parties)*,**

<u>Vehicle and Equipment Type</u>	<u>Opossum Creek</u>	<u>Coon Creek</u>	<u>Lone Point</u>	<u>Lithia Springs</u>	<u>Forrest W. Wood</u>	<u>Whitley Creek</u>	<u>Project Totals</u>
Vehicle							
Car	42.3	41.4	47.6	39.6	43.3	42.9	41.5
Truck	34.5	41.7	34.5	36.1	47.5	53.6	40.7
Van	21.1	18.0	17.9	17.7	13.8	19.6	16.9
Motor home	4.9	13.1	15.9	16.5	26.4	5.4	17.8
Other	0.0	0.1	0.0	0.1	0.0	0.0	0.1
Camping equipment†							
Tent	87.3	44.8	62.1	43.9	15.9	62.5	38.9
Pop-up trailer	1.4	15.4	11.7	15.1	10.7	14.3	13.3
Pickup camper	7.0	6.7	6.2	8.2	7.6	7.1	7.6
Travel trailer	2.8	21.5	9.0	18.2	38.9	5.4	23.6
No camping equipment	0.0	0.0	0.0	0.1	0.5	14.3	0.4
Recreational equipment							
Powerboat	38.0	42.4	35.2	36.9	43.4	44.6	40.0

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (7,526) to the number issued in 1985 (18,405) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A25

1986 Shenango River Lake (Shenango Rec Area)User Characteristics*

<u>Characteristic</u>	<u>Value</u>
Recreation days	43,515
Mean length of stay, nights	3.3
Mean number in group	3.5
Percent prior visits**	91.3
Percent primary destination**	97.2
Percent Golden Age passports†	18.9
Percent Golden Access passports†	3.4
Number of camping permits	5,438
Number of camping groups	3,591

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (5,438) to the number issued in 1985 (7,618) to judge how accurately the data in this table represent actual camping use.

** Percent of camping parties.

† Percent of camping permits.

Table A26

1986 Shenango River Lake Vehicle and Equipment Type*

<u>Vehicle and Equipment Type</u>	<u>Percent of Camping Parties</u>
Vehicle	
Car	56.3
Truck	38.7
Van	12.8
Motor home	14.9
Other	0.5
Camping equipment**	
Tent	31.9
Pop-up trailer	12.7
Pickup camper	7.6
Travel trailer	27.8
No camping equipment	3.8
Recreational equipment	
Powerboat	31.6

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (5,438) to the number issued in 1985 (7,618) to judge how accurately the data in this table represent actual camping use.

** Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A27

1986 Somerville Lake User Characteristics*,**

<u>Characteristic</u>	<u>Big Creek</u>	<u>Rocky Creek</u>	<u>Yegua Creek</u>	<u>Overlook</u>	<u>Project Totals</u>
Recreation days	6,039	41,600	33,089	14,416	95,144
Mean length of stay, nights	1.7	2.2	2.4	1.3	2.1
Mean number in group	3.3	3.6	3.4	3.9	3.6
Percent prior visits†	58.7	53.1	36.4	61.1	49.9
Percent primary destination†	67.0	72.1	47.3	84.5	66.4
Percent Golden Age passports††	6.3	14.3	25.0	4.0	15.0
Percent Golden Access passports††	0.0	0.4	1.3	0.1	0.6
Number of camping permits	1,242	6,880	5,421	3,064	16,607
Number of camping groups	1,100	5,753	4,480	2,868	14,201

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (16,607) to the number issued in 1985 (21,464) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table A28
1986 Somerville Lake Vehicle and Equipment Type
(Percent of Camping Parties)*,**

<u>Vehicle and Equipment Type</u>	<u>Big Creek</u>	<u>Rocky Creek</u>	<u>Yegua Creek</u>	<u>Overlook</u>	<u>Project Totals</u>
Vehicle					
Car	42.3	30.4	32.0	54.5	36.7
Truck	48.2	50.0	51.1	39.4	48.1
Van	11.1	9.8	11.7	10.1	10.6
Motor home	4.1	7.5	14.2	3.3	8.5
Other	0.3	2.2	0.2	0.4	1.0
Camping equipment†					
Tent	58.7	51.4	31.4	29.1	41.4
Pop-up trailer	4.1	5.8	5.4	2.1	4.8
Pickup camper	5.1	3.7	4.1	2.4	3.6
Travel trailer	6.3	16.1	27.1	2.2	16.0
No camping equipment	5.5	12.0	12.7	38.5	17.1
Recreational equipment					
Powerboat	25.4	33.2	31.6	15.2	28.4

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (16,607) to the number issued in 1985 (21,464) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table A29
1986 West Point Lake User Characteristics*,**

<u>Characteristic</u>	<u>R. Shaefer Heard</u>	<u>Holiday Park</u>	<u>Stateline Park</u>	<u>Amity Park</u>	<u>Project Totals</u>
Recreation days	11,436	26,539	9,373	16,219	63,567
Mean length of stay, nights	2.7	2.9	2.6	3.2	2.9
Mean number in group	3.7	3.2	3.8	3.6	3.4
Percent prior visits†	76.5	36.7	13.9	68.4	47.0
Percent primary destination†	80.6	36.1	22.4	85.2	52.5
Percent Golden Age passports††	18.3	18.3	9.4	21.5	17.6
Percent Golden Access passports††	4.4	5.3	4.0	4.2	4.7
Number of camping permits	1,406	3,788	1,160	1,822	8,176
Number of camping groups	1,069	2,889	951	1,402	6,311

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (8,176) to the number issued in 1985 (8,876) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table A30
1986 West Point Lake Vehicle and Equipment Type
(Percent of Camping Parties)*,**

<u>Vehicle and Equipment Type</u>	<u>R. Shaefer Heard</u>	<u>Holiday Park</u>	<u>Stateline Park</u>	<u>Amity Park</u>	<u>Project Totals</u>
Vehicle					
Car	53.5	27.8	32.6	46.4	37.0
Truck	56.0	53.2	59.6	54.5	54.9
Van	13.0	13.3	15.8	9.8	12.9
Motor home	19.7	21.5	16.2	22.1	20.6
Other	1.9	0.3	0.4	0.6	0.7
Camping equipment†					
Tent	40.0	32.1	48.6	33.0	36.1
Pop-up trailer	7.5	5.5	5.8	7.5	6.3
Pickup camper	12.9	9.8	8.0	8.1	9.7
Travel trailer	23.7	16.1	13.0	27.5	19.5
No camping equipment	0.0	0.0	0.1	0.0	0.0
Recreational equipment					
Powerboat	52.8	61.9	57.6	50.9	57.3

* In 1986, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1986 (8,176) to the number issued in 1985 (8,876) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

APPENDIX B: 1987 CRS DATA SUMMARIES FOR INDIVIDUAL
RECREATION AREAS

Table B1
1987 Lake Barkley User Characteristics*,**

<u>Characteristic</u>	<u>Eureka</u>	<u>Canal</u>	<u>Hurricane Creek</u>	<u>Devils Elbow</u>	<u>Bumpus Mills</u>	<u>Project Totals</u>
Recreation days	3,162	17,653	6,893	278	3,513	31,499
Mean length of stay, nights	2.2	3.2	3.0	1.6	2.2	2.9
Mean number in group	3.6	2.9	3.8	3.6	7.4	3.6
Percent prior visits†	77.2	26.9	42.4	72.3	75.5	41.3
Percent primary destination†	63.2	36.9	43.6	89.4	85.3	46.9
Percent Golden Age passports††	22.6	35.0	30.0	19.2	17.6	30.7
Percent Golden Access passports††	4.8	4.9	8.1	0.0	2.6	5.2
Number of camping permits	394	1,846	516	48	310	3,114
Number of camping groups	394	1,845	516	47	306	3,108

* In 1987, the supply of Engineer Form 4477-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (3,114) to the number issued in 1985 (5,939) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table B2
1987 Lake Barkley Vehicle and Equipment Type
(Percent of Camping Parties)*, **

<u>Vehicle and Equipment Type</u>	<u>Eureka</u>	<u>Canal</u>	<u>Hurricane Creek</u>	<u>Devils Elbow</u>	<u>Bumpus Mills</u>	<u>Project Totals</u>
Vehicle						
Car	33.0	4.7	6.0	0.0	34.3	11.4
Truck	38.3	6.1	11.8	0.0	37.6	14.1
Van	6.4	0.3	3.3	0.0	11.4	2.7
Motor home	5.6	3.0	7.0	0.0	8.5	4.5
Other	48.2	0.2	0.6	0.0	3.3	6.6
Camping equipment†						
Tent	32.2	1.8	4.5	0.0	30.1	8.9
Pop-up trailer	7.9	1.4	0.4	0.0	19.6	3.8
Pickup camper	6.1	1.1	1.9	0.0	13.7	3.1
Travel trailer	16.0	4.6	7.6	0.0	5.9	6.6
No camping equipment	44.7	3.5	8.1	0.0	10.5	10.1
Recreational equipment						
Powerboat	23.1	3.8	10.9	0.0	45.1	11.4

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (3,114) to the number issued in 1985 (5,939) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table B3

1987 Hartwell Lake User Characteristics*,**

<u>Characteristic</u>	<u>Watsadlers</u>	<u>River GA</u>	<u>Twin Lakes</u>	<u>Project Totals</u>
Recreation days	1,968	10	1,900	3,878
Mean length of stay, nights	3.2	5.0	2.7	2.9
Mean number in group	2.3	2.0	2.8	2.6
Percent prior visits†	61.4	100.0	70.2	65.6
Percent primary destination†	74.0	0.0	82.6	77.9
Percent Golden Age passports††	49.1	100.0	28.3	39.3
Percent Golden Access passports††	3.2	0.0	1.2	2.2
Number of camping permits	426	2	329	757
Number of camping groups	285	1	258	544

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (757) to the number issued in 1985 (8,455) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table B4
1987 Hartwell Lake Vehicle and Equipment Type
Percent of Camping Parties*,**

<u>Vehicle and Equipment</u> <u>Type</u>	<u>Watsadlers</u>	<u>River</u> <u>GA</u>	<u>Twin</u> <u>Lakes</u>	<u>Project</u> <u>Totals</u>
Vehicle				
Car	25.6	0.0	33.7	29.4
Truck	41.1	100.0	35.3	38.4
Van	16.8	0.0	11.6	14.3
Motor home	34.0	0.0	33.3	33.6
Other	0.4	0.0	1.9	1.1
Camping equipment†				
Tent	6.0	0.0	14.7	10.1
Pop-up trailer	7.4	0.0	14.0	10.5
Pickup camper	3.9	0.0	3.1	3.5
Travel trailer	41.8	100.0	28.7	35.7
No camping equipment	0.0	0.0	0.0	0.0
Recreational equipment				
Powerboat	13.0	0.0	4.7	9.0

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (757) to the number issued in 1985 (8,455) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table B5
1987 Milford Lake User Characteristics*,**

<u>Characteristic</u>	<u>Curtis Creek</u>	<u>Farnum Creek</u>	<u>Rolling Hills</u>	<u>School Creek</u>	<u>Timber Creek</u>	<u>Project Totals</u>
Recreation days	1,575	1,071	2,754	395	525	6,320
Mean length of stay, nights	2.4	2.1	2.2	1.7	2.1	2.2
Mean number in group	3.3	4.7	2.8	2.8	3.3	3.2
Percent prior visits†	79.5	58.8	0.8	54.7	16.9	30.2
Percent primary destination†	83.2	89.3	0.8	80.2	6.0	36.4
Percent Golden Age passports††	22.6	19.9	29.7	11.6	8.4	23.5
Percent Golden Access passports††	0.5	1.5	0.4	0.0	0.0	0.5
Number of camping permits	247	161	481	88	93	1,070
Number of camping groups	190	131	479	86	83	969

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (1070) to the number issued in 1985 (4,408) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table B6
1987 Milford Lake Vehicle and Equipment Type
Percent of Camping Parties*,**

<u>Vehicle and Equipment Type</u>	<u>Curtis Creek</u>	<u>Farnum Creek</u>	<u>Rolling Hills</u>	<u>School Creek</u>	<u>Timber Creek</u>	<u>Project Totals</u>
Vehicle						
Car	26.8	45.0	32.6	18.6	39.8	32.5
Truck	60.5	55.7	50.3	73.3	60.2	55.9
Van	12.1	9.2	9.6	3.5	6.0	9.2
Motor home	21.1	13.0	22.8	26.9	7.2	19.6
Other	0.5	4.6	0.2	0.0	0.0	0.8
Camping equipment†						
Tent	24.7	22.1	27.8	14.0	43.4	27.9
Pop-up trailer	7.4	2.3	5.0	5.8	8.4	5.5
Pickup camper	10.0	7.6	8.8	19.8	7.2	9.7
Travel trailer	31.6	42.0	31.1	38.4	25.3	32.8
No camping equipment	19.0	3.1	0.6	15.1	0.0	5.8
Recreational equipment						
Powerboat	43.7	21.4	34.0	34.9	13.3	32.5

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (1070) to the number issued in 1985 (4,408) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table B7

1987 Mississippi Pool 16 (Clark's Ferry Campsite)User Characteristics*

<u>Characteristic</u>	<u>Value</u>
Recreation days	5,903
Mean length of stay, nights	3.1
Mean number in group	2.5
Percent prior visits**	64.9
Percent primary destination**	86.7
Percent Golden Age passports†	0.0
Percent Golden Access passports†	0.0
Number of camping permits	1,105
Number of camping groups	790

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (1,105) to the number issued in 1985 (1,870) to judge how accurately the data in this table represent actual camping use.

** Percent of camping parties.

† Percent of camping permits.

Table B8
1987 Mississippi Pool 16 (Clark's Ferry Campsite)
Vehicle and Equipment Type Characteristics*

<u>Vehicle and Equipment Type</u>	<u>Percentage of Camping Parties</u>
Vehicle	
Car	25.4
Truck	41.5
Van	12.8
Motor home	33.4
Other	1.4
Camping equipment**	
Tent	6.3
Pop-up trailer	4.7
Pickup camper	3.3
Travel trailer	49.4
No camping equipment	0.4
Recreational equipment	
Powerboat	4.4

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (1,105) to the number issued in 1985 (1,873) to judge how accurately the data in this table represent actual camping use.

** Motor homes are included in the calculations of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table B9

1987 Nolin River Lake User Characteristics*,**

<u>Characteristic</u>	<u>Dog Creek</u>	<u>Wax</u>	<u>Moutardier</u>	<u>Project Totals</u>
Recreation days	2,682	6,664	7,470	16,816
Mean length of stay, nights	1.8	1.9	2.1	2.0
Mean number in group	3.7	3.8	3.5	3.6
Percent prior visits†	77.1	62.9	38.9	55.7
Percent primary destination†	94.0	96.1	46.1	75.4
Percent Golden Age passports††	9.5	7.1	10.1	8.7
Percent Golden Access passports††	2.7	0.7	1.2	1.3
Number of camping permits	438	961	1,025	2,424
Number of camping groups	402	930	912	2,244

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (2,424) to the number issued in 1985 (5,256) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table B10
1987 Nolin River Lake Vehicle and Equipment Type
Percent of Camping Parties*,**

<u>Vehicle and Equipment Type</u>	<u>Dog Creek</u>	<u>Wax</u>	<u>Moutardier</u>	<u>Project Totals</u>
Vehicle				
Car	16.7	13.1	19.9	16.5
Truck	24.6	12.7	28.6	21.3
Van	7.2	5.1	7.2	6.3
Motor home	5.5	3.0	6.8	5.0
Other	0.3	0.1	0.2	0.2
Camping equipment†				
Tent	20.2	15.2	24.8	20.0
Pop-up trailer	2.0	2.0	3.8	2.8
Pickup camper	8.5	2.8	11.1	7.2
Travel trailer	1.5	1.6	4.5	2.8
No camping equipment	5.5	6.3	1.9	4.4
Recreational equipment				
Powerboat	28.6	16.6	27.5	23.2

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (2,424) to the number issued in 1985 (5,256) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment

Table B11

1987 Lake Ouachita User Characteristics*,**

<u>Characteristic</u>	<u>Denby Point</u>	<u>Tompkins Bend</u>	<u>Joplin</u>	<u>Crystal Springs</u>	<u>Brady Mountain</u>	<u>Project Totals</u>
Recreation days	17,242	13,495	9,158	7,478	14,301	61,674
Mean length of stay, nights	2.4	2.4	2.0	1.9	2.3	2.2
Mean number in group	3.9	3.7	3.9	4.0	4.0	3.9
Percent prior visits†	75.5	84.1	74.9	69.2	86.7	78.8
Percent primary destination†	91.6	74.6	92.3	74.4	92.1	85.8
Percent Golden Age passports††	19.7	17.3	2.8	5.4	7.9	11.8
Percent Golden Access passports††	6.4	4.6	1.2	0.7	2.7	3.6
Number of camping permits	1,852	1,499	1,206	968	1,506	7,031
Number of camping groups	1,852	1,499	1,206	968	1,506	7,031

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (7,031) to the number issued in 1985 (8,621) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table B12
1987 Lake Ouachita Vehicle and Equipment Type
Percent of Camping Parties*,**

<u>Vehicle and Equipment Type</u>	<u>Denby Point</u>	<u>Tompkins Bend</u>	<u>Joplin</u>	<u>Crystal Springs</u>	<u>Brady Mountain</u>	<u>Project Totals</u>
Vehicle						
Car	11.7	11.9	17.7	15.1	9.2	12.7
Truck	18.3	22.2	25.0	18.2	12.0	18.9
Van	5.0	3.6	6.1	2.9	2.7	4.1
Motor home	7.7	5.5	1.7	2.0	1.6	4.1
Other	0.0	0.0	1.3	0.1	0.0	0.2
Camping equipment†						
Tent	11.8	11.7	36.7	26.1	10.3	17.7
Pop-up trailer	2.9	5.2	5.3	3.7	3.9	4.1
Pickup camper	2.3	1.8	1.7	0.6	0.7	1.5
Travel trailer	12.4	10.7	3.1	2.1	5.5	7.5
No camping equipment	6.3	5.1	2.1	1.9	1.5	3.7
Recreational equipment						
Powerboat	18.7	20.7	25.5	16.7	9.8	18.1

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (7,031) to the number issued in 1985 (8,621) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table B13

1987 Lake Shelbyville User Characteristics*,**

<u>Characteristic</u>	<u>Coon Creek</u>	<u>Lone Point</u>	<u>Lithia Springs</u>	<u>Forrest W. Woods</u>	<u>Whitley Creek</u>	<u>Project Totals</u>
Recreation days	40,281	10,334	26,639	18,626	5,468	101,348
Mean length of stay, nights	2.8	2.6	2.8	5.8	2.3	3.1
Mean number in group	3.7	3.3	3.1	2.6	3.9	3.4
Percent prior visits†	53.8	39.2	73.6	99.3	66.2	64.1
Percent primary destination†	54.0	44.2	94.0	99.1	73.5	71.3
Percent Golden Age passports††	8.7	16.2	14.9	41.1	3.4	15.0
Percent Golden Access passports††	1.5	1.7	3.0	3.0	0.7	2.1
Number of camping permits	4,735	1,412	3,576	2,670	717	13,110
Number of camping groups	3,896	1,244	2,983	1,179	597	9,899

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (13,110) to the number issued in 1985 (18,405) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table B14
1987 Lake Shelbyville Vehicle and Equipment Type
Percent of Camping Parties*,**

<u>Vehicle and Equipment Type</u>	<u>Coon Creek</u>	<u>Lone Point</u>	<u>Lithia Springs</u>	<u>Forrest W. Woods</u>	<u>Whitley Creek</u>	<u>Project Totals</u>
Vehicle						
Car	6.0	15.6	7.6	8.7	14.2	8.5
Truck	6.1	16.9	6.7	8.9	14.4	8.5
Van	2.4	6.9	2.5	3.0	7.0	3.3
Motor home	1.4	7.2	2.8	4.9	1.2	3.0
Other	0.0	0.1	0.1	0.0	0.2	0.1
Camping equipment†						
Tent	6.4	18.8	7.8	2.7	21.9	8.9
Pop-up trailer	2.5	4.5	2.5	2.3	3.5	2.8
Pickup camper	0.9	2.3	0.7	0.9	2.7	1.1
Travel trailer	2.4	7.6	3.6	8.6	2.0	4.1
No camping equipment	1.1	5.2	2.3	4.4	0.8	2.4
Recreational equipment						
Powerboat	4.6	18.5	6.0	8.1	18.1	8.0

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (13,110) to the number issued in 1985 (18,405) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table B15
1987 Shenango Lake (Shenango Rec Area)
User Characteristics*

<u>Characteristic</u>	<u>Value</u>
Recreation days	62,177
Mean length of stay, nights	2.8
Mean number in group	3.7
Percent prior visits**	72.9
Percent primary destination**	82.7
Percent Golden Age passports†	13.5
Percent Golden Access passports†	2.8
Number of camping permits	8,520
Number of camping groups	5,894

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (8,520) to the number issued in 1985 (7,618) to judge how accurately the data in this table represent actual camping use.

** Percent of camping parties.

† Percent of camping permits.

Table B16

1987 Shenango Lake (Shenango Rec Area) Vehicle and Equipment Type

<u>Vehicle and Equipment Type</u>	<u>Percent of Camping Parties*</u>
Vehicle	
Car	50.0
Truck	38.3
Van	11.4
Motor home	13.7
Other	0.2
Camping equipment**	
Tent	29.8
Pop-up trailer	10.9
Pickup camper	5.6
Travel trailer	22.6
No camping equipment	9.7
Recreational equipment	
Powerboat	29.3

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (8,520) to the number issued in 1985 (7,618) to judge how accurately the data in this table represent actual camping use.

** Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.

Table B17
1987 West Point Lake User Characteristics*,**

<u>Characteristic</u>	<u>R. Shaefer Heard</u>	<u>Holiday Park</u>	<u>Stateline Park</u>	<u>Amity Park</u>	<u>White Tail Ridge</u>	<u>Project Totals</u>
Recreation days	12,512	26,771	8,035	13,833	176	61,327
Mean length of stay, nights	2.5	3.0	2.9	3.2	2.9	2.9
Mean number in group	3.4	3.5	4.1	3.6	3.1	3.6
Percent prior visits†	44.9	73.8	10.7	61.1	70.9	56.8
Percent primary destination†	36.6	76.5	11.1	70.9	0.0	58.1
Percent Golden Age passports††	21.3	18.4	9.1	24.0	0.0	19.1
Percent Golden Access passports††	3.0	5.1	4.2	5.3	0.0	4.5
Number of camping permits	1,640	3,401	851	1,487	21	7,400
Number of camping groups	1,383	2,557	637	1,211	19	5,843

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (7,400) to the number issued in 1985 (8,876) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Percent of camping parties.

†† Percent of camping permits.

Table B18
1987 West Point Lake Vehicle and Equipment Type
Percent of Camping Parties*,**

<u>Characteristic</u>	<u>R. Shaefer Heard</u>	<u>Holiday Park</u>	<u>Stateline Park</u>	<u>Amity Park</u>	<u>White Tail Ridge</u>	<u>Project Totals</u>
Vehicle						
Car	35.7	32.0	38.0	37.9	52.6	34.9
Truck	49.2	54.6	53.2	52.1	57.9	52.6
Van	13.4	14.6	12.9	11.9	0.0	13.5
Motor home	22.3	22.6	18.6	23.5	5.3	22.2
Other	0.1	2.0	1.0	0.3	0.0	1.1
Camping equipment†						
Tent	38.1	37.7	49.5	26.3	63.2	36.9
Pop-up trailer	9.3	5.8	7.0	9.3	5.3	7.5
Pickup camper	4.1	6.4	4.3	9.6	0.0	6.2
Travel trailer	24.4	21.7	15.0	31.7	0.0	23.6
No camping equipment	0.0	0.1	0.2	0.1	0.0	0.1
Recreational equipment						
Powerboat	37.3	57.8	46.4	43.9	5.3	48.6

* In 1987, the supply of Engineer Form 4457-1 was inadequate to meet the needs of all CRS projects. This was not a problem in 1985. Readers are advised to compare the number of permits issued in 1987 (7,400) to the number issued in 1985 (8,876) to judge how accurately the data in this table represent actual camping use.

** Recreation area averages were weighted by the total number of permits for each area to compute project averages.

† Motor homes are included in the calculation of camping equipment percentages. Camping equipment percentages can sum to more than 100 percent because parties can use multiple pieces of equipment.